

1-1-1895

Collection Book 1895

Cyrus Guernsey Pringle

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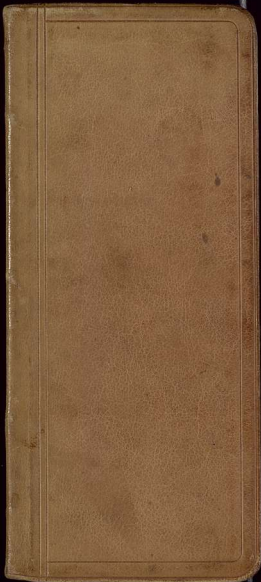


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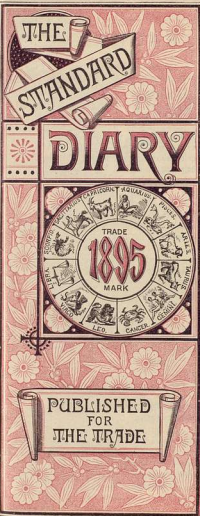
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C. G. Pringle,
Botanical Collector
to
Harvard University.

Home address:
Charlotte,
Vermont.



CALENDAR.

	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.		Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Jan.	...	1	2	3	4	5		July.	...	1	2	3	4	5	6
	6	7	8	9	10	11	12		7	8	9	10	11	12	
	13	14	15	16	17	18	19		14	15	16	17	18	19	
	20	21	22	23	24	25	26		21	22	23	24	25	26	27
	27	28	29	30	31	...			28	29	30	31	...		
Feb.	...	...	...	...	...	1	2		...	...	...	...	...	1	2
	3	4	5	6	7	8	9		4	5	6	7	8	9	10
	10	11	12	13	14	15	16		11	12	13	14	15	16	17
	17	18	19	20	21	22	23		18	19	20	21	22	23	24
	24	25	26	27	28	...			25	26	27	28	29	30	31
March.	...	...	...	...	...	1	2		...	...	...	...	...	...	...
	3	4	5	6	7	8	9		1	2	3	4	5	6	7
	10	11	12	13	14	15	16		8	9	10	11	12	13	14
	17	18	19	20	21	22	23		15	16	17	18	19	20	21
	24	25	26	27	28	29	30		22	23	24	25	26	27	28
	31	...	...	...	...	...			29	30	...	...	...	...	...
April.	...	1	2	3	4	5	6		...	...	1	2	3	4	5
	7	8	9	10	11	12	13		6	7	8	9	10	11	12
	14	15	16	17	18	19	20		13	14	15	16	17	18	19
	21	22	23	24	25	26	27		20	21	22	23	24	25	26
	28	29	30	...	...	...			27	28	29	30	31	...	
May.	...	...	...	1	2	3	4		...	...	...	...	...	1	2
	5	6	7	8	9	10	11		3	4	5	6	7	8	9
	12	13	14	15	16	17	18		10	11	12	13	14	15	16
	19	20	21	22	23	24	25		17	18	19	20	21	22	23
	26	27	28	29	30	31	...		24	25	26	27	28	29	30
June.	...	...	...	...	...	...	1		...	...	...	...	...	...	...
	2	3	4	5	6	7	8		1	2	3	4	5	6	7
	9	10	11	12	13	14	15		8	9	10	11	12	13	14
	16	17	18	19	20	21	22		15	16	17	18	19	20	21
	23	24	25	26	27	28	29		22	23	24	25	26	27	28
	30	...	...	...	...	...			29	30	31	...	...	...	...

WEIGHTS AND MEASURES.

MEASURE OF LENGTH

4	In. make :	Hand.	3	Feet make :	Yard.
7.92	In. " :	Link.	5 1/2	Yds. " :	Rod or Pole.
18	In. " :	Cubit.	40	Poles " :	Furlong.
12	In. " :	Foot.	8	Fur. " :	Mill.
6	Fl. " :	Fathom.	60	1/4 Miles make :	Degree.

60 Geographical Miles make : Degree.

60 Geographical Miles make 1 Degree.
1760 Yards } = 1 Mile.
5280 Feet }

MEASURE OF SURFACE

144	Square Inches make	1	Square Foot.
9	Square Feet	1	Square Yard.
361	Square Yards	1	Rod, Perch or Pole.
40	Square Rods	1	Square Rod.
4	Square Rods	1	Square Acre.
30	Square Chains	1	Square Acre.
640	Square Acres	1	Square Mile.
Gunter's Chain equal to 22 Yards or 100 Links.			
272½	Square Feet make	1	Square Rod.
43,560	Square Feet	1	Acre.

MEASURE OF SOLIDITY.

1728 Cubic Inches make 1 Cubic Foot.
27 Cubic Feet " 1 Cubic Yard.

AVOIRDUPOIS WEIGHT

27½	Grains make	1	Drachm (dr.) or	27½	Grains.
16	Drachms	"	1	Ounce (oz.) or	437½
16	Ounces	"	1	Pound (lb.) or	7000
28	Pounds	"	1	Quarter (qr.)	
4	Quarters	"	1	Hundred-Weight (cwt.)	
20	Cwts.	"	1	Ton.	
2240	Pounds	"	1	Ton.	

TROY WEIGHT.

24 Grains	make 1 Pennyweight,	or	24 Grains.
20 Pennywts.	" 1 Ounce,	or	480 "
12 Ounces	" 1 Pound,	or	5760 "

APOTHECARIES' WEIGHT.

60 Grains make 1 Scruple.	8 Drachma make 1 Ounce.
3 Scruples " 1 Drachm.	12 Ounces " 1 Pound.

DIAMOND WEIGHT.

16 Parts make 1 Grain (4-5ths Grain Troy.)
4 Grains " 1 Carat (1 1-5th Grains Troy.)

LIQUID MEASURE.

4 Gills make : Pint.	12½ Gallons make : Barrel.
2 Pints " : Quart.	54 Gallons " : Hhd.
4 Quarts " : Gallon.	252 Gallons " : Tun.

DRY MEASURE.

6 Quarts make 1 Peck. 8 Bushels make 1 Quarter.
4 Pecks " 1 Bushel. 36 Bushels " 1 Chaldron.
1 Bushel equal to 2150.42 cubic inches.

WEIGHT PER BUSHEL OF GRAIN, ETC.

The following Table shows the number of pounds per bushel required, by law or custom, in the sale of articles specified, in the several States of the Union.

STATES.	Barley.	Rye.	Wheat.	Coal.	Corn, shd'd.	Corn Meal.	Oats.	Peas.	Rye.	Wheat.	Sa. & S.	Turnips.	beans, wh.	Clover Sd.	Timothy.
Maine	45 48	..	56	50	52	10 60	..	60	..	50 74	..	..	..	..	..
N. Hampshire.	..	..	55	50	..	10 60	56	60	..	..	60	..	..	..	..
Vermont	45 48	..	..	..	..	12 60	56	60	70	..	64 60	41	..	..	..
Massachusetts.	18 48	..	50	50	52	12 60	56	60	..	..	..	..	..	..	..
Connecticut ..	41 45	..	..	..	..	12 60	56	60	..	..	..	..	..	..	..
New York	18 45	..	53	..	..	13 60	56	60	..	53 60	44	..	..	..	..
New Jersey ..	18 50	..	50	..	..	10 60	56	60	..	..	60	..	..	..	..
Pennsylvania ..	17 48	..	56	..	..	10 56	56	60	85	..	60	..	..	..	..
Delaware .....	..	..	50	..	..	..	..	..	..	..	..	..	..	..	..
Maryland	18 48	36	57	12	60	56	60	56	50	52 64	43	..	..	..	..
Dist. Columbia	17 48	36	50	48	57	13 56	56	60	50	53 62 60	..	..	..	..	..
Virginia	18 48	..	56	50	..	12 60	56	60	..	56 60 64	43	..	..	..	..
West Virginia.	18 50	50	50	48	..	12 60	56	60	..	60 60 60	..	..	..	..	..
North Carolina	18 50	..	54	40	..	10 56	60	..	..	..	60	..	..	..	..
South Carolina	44 56	36	50	50	57	13 56	56	60	50	..	60 60	..	..	..	..
Georgia	10 30	56	48	57	35	35	..	60	50	..	60	45	..	..	..
Louisiana	32	..	56	37	..	..	..	..	..	..	..	..	..	..	..
Arkansas	18 50	36	50	50	57	13 60	56	60	50	..	60 60	45	..	..	..
Tennessee	18 50	..	50	50	52	12 60	56	60	..	..	60	45	..	..	..
Kentucky	18 52	..	50	50	57	13 56	60	60	..	60 60	45	..	..	..	..
Ohio	18 50	..	56	..	..	12 60	56	60	..	..	60 60	45	..	..	..
Michigan	18 47 48	50	..	54	52	10 56	60	56	56	58 60 60	..	..	..	..	..
Indiana	18 50	70	50	50	48	13 56	60	50	..	..	60 60	..	..	..	..
Illinois	18 52	..	50	48	57	12 60	56	60	50	..	60 60	..	..	..	..
Wisconsin	48 50	..	..	..	..	12 60	56	60	..	..	..	..	..	..	..
Minnesota	48 41	..	56	..	..	12 60	56	60	..	..	..	..	..	..	..
Iowa	48 52	..	56	..	37	13 60	56	60	50	..	60 60	45	..	..	..
Missouri	48 52	..	56	..	57	13 60	56	60	50	..	60 60	45	..	..	..
Kansas	48 50	..	56	50	57	12 60	56	60	50	55 60	..	45	..	..	..
Nebraska	48 52	..	56	50	57	14 60	56	60	50	55 60	..	..	..	..	..
California	50 40	52	..	..	..	12 54	60	..	..	..	60 60	..	..	..	..
Oregon	40 42	56	..	..	..	10 60	56	60	..	..	..	..	..	..	..

INTEREST TABLE.

FOUR PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Dy.	0	0	0	0	0	0	0	0	0	0	1	11
1 Mo.	0	0	0	0	0	0	0	0	0	0	1	31
3 "	0	0	0	0	0	0	0	0	0	0	3	56
10 "	0	0	0	0	0	0	0	0	0	0	1	12
12 "	0	0	0	0	0	0	0	0	0	0	1	33
25 "	0	0	0	0	0	0	0	0	0	0	3	28
1 Mo.	0	1	1	1	1	1	1	1	1	1	3	33
3 "	1	2	2	2	2	2	2	2	2	2	6	67
10 "	1	3	3	3	3	3	3	3	3	3	10	100
12 "	1	3	4	4	4	4	4	4	4	4	10	100
25 "	1	3	5	5	5	5	5	5	5	5	16	167
1 Mo.	2	4	6	6	6	6	6	6	6	6	20	200
3 "	2	4	7	7	7	7	7	7	7	7	23	233
10 "	2	5	8	8	8	8	8	8	8	8	26	267
12 "	2	5	9	9	9	9	9	9	9	9	26	267
25 "	2	5	10	10	10	10	10	10	10	10	30	300
1 Mo.	3	6	10	10	10	10	10	10	10	10	33	333
3 "	3	6	11	11	11	11	11	11	11	11	37	367
10 "	3	7	11	11	11	11	11	11	11	11	40	400
12 "	3	7	12	12	12	12	12	12	12	12	40	400

FIVE PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Dy.	0	0	0	0	0	0	0	0	0	0	1	14
1 Mo.	0	0	0	0	0	0	0	0	0	0	1	42
3 "	0	0	0	0	0	0	0	0	0	0	1	69
10 "	0	0	0	0	0	0	0	0	0	0	1	29
12 "	0	0	0	0	0	0	0	0	0	0	1	67
25 "	0	0	0	0	0	0	0	0	0	0	3	47
1 Mo.	1	1	1	1	1	1	1	1	1	1	4	47
3 "	1	2	2	2	2	2	2	2	2	2	8	83
10 "	1	2	3	3	3	3	3	3	3	3	10	100
12 "	1	2	3	3	3	3	3	3	3	3	10	100
25 "	1	2	3	3	3	3	3	3	3	3	15	150
1 Mo.	2	4	5	5	5	5	5	5	5	5	18	180
3 "	2	4	5	5	5	5	5	5	5	5	20	200
10 "	2	4	6	6	6	6	6	6	6	6	22	220
12 "	2	4	6	6	6	6	6	6	6	6	22	220
25 "	2	4	7	7	7	7	7	7	7	7	25	250
1 Mo.	3	6	8	8	8	8	8	8	8	8	28	280
3 "	3	6	9	9	9	9	9	9	9	9	31	310
10 "	3	7	10	10	10	10	10	10	10	10	33	330
12 "	3	7	10	10	10	10	10	10	10	10	33	330
25 "	3	7	11	11	11	11	11	11	11	11	37	370
1 Mo.	4	8	12	12	12	12	12	12	12	12	40	400
3 "	4	8	13	13	13	13	13	13	13	13	44	440
10 "	4	9	14	14	14	14	14	14	14	14	46	460
12 "	4	9	14	14	14	14	14	14	14	14	46	460
25 "	4	9	15	15	15	15	15	15	15	15	50	500

SIX PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Dy.	0	0	0	0	0	0	0	0	0	0	1	17
1 Mo.	0	0	0	0	0	0	0	0	0	0	1	50
3 "	0	0	0	0	0	0	0	0	0	0	1	81
10 "	0	0	0	0	0	0	0	0	0	0	1	67
12 "	0	0	0	0	0	0	0	0	0	0	1	67
25 "	0	0	0	0	0	0	0	0	0	0	3	47
1 Mo.	1	1	1	1	1	1	1	1	1	1	4	47
3 "	1	2	2	2	2	2	2	2	2	2	8	83
10 "	1	2	3	3	3	3	3	3	3	3	10	100
12 "	1	2	3	3	3	3	3	3	3	3	10	100
25 "	1	2	3	3	3	3	3	3	3	3	15	150
1 Mo.	2	4	5	5	5	5	5	5	5	5	18	180
3 "	2	4	5	5	5	5	5	5	5	5	20	200
10 "	2	4	6	6	6	6	6	6	6	6	22	220
12 "	2	4	6	6	6	6	6	6	6	6	22	220
25 "	2	4	7	7	7	7	7	7	7	7	25	250
1 Mo.	3	6	8	8	8	8	8	8	8	8	28	280
3 "	3	6	9	9	9	9	9	9	9	9	31	310
10 "	3	7	10	10	10	10	10	10	10	10	33	330
12 "	3	7	10	10	10	10	10	10	10	10	33	330
25 "	3	7	11	11	11	11	11	11	11	11	37	370
1 Mo.	4	8	12	12	12	12	12	12	12	12	40	400
3 "	4	8	13	13	13	13	13	13	13	13	44	440
10 "	4	9	14	14	14	14	14	14	14	14	46	460
12 "	4	9	14	14	14	14	14	14	14	14	46	460
25 "	4	9	15	15	15	15	15	15	15	15	50	500

RATE OF INCOME ON STOCKS.

Purchased at the following prices, (par value being \$100), and bearing interest at the following rates.

Paid.	3%	4%	5%	6%	7%	8%	9%
\$50	6 00	8 00	10 00	12 00	14 00	16 00	18 00
55	5 45	7 27	9 09	10 90	12 72	14 55	16 36
60	5 00	6 67	8 33	10 00	11 66	13 33	15 00
65	4 62	6 15	7 69	9 23	10 76	12 30	13 85
70	4 28	5 71	7 14	8 57	10 00	11 42	12 85
75	4 00	5 33	6 66	8 00	9 33	10 66	12 00
80	3 75	5 00	6 25	7 50	8 75	10 00	11 25
85	3 53	4 70	5 88	7 05	8 23	9 41	10 58
90	3 33	4 44	5 55	6 66	7 77	8 88	10 00
91	3 30	4 40	5 49	6 59	7 69	8 79	9 89
92	3 26	4 34	5 43	6 52	7 60	8 70	9 78
93	3 23	4 30	5 38	6 45	7 53	8 60	9 68
94	3 19	4 26	5 32	6 38	7 45	8 51	9 57
95	3 15	4 21	5 26	6 31	7 36	8 42	9 47
96	3 13	4 17	5 21	6 25	7 29	8 33	9 38
97	3 09	4 12	5 15	6 18	7 22	8 25	9 28
98	3 06	4 08	5 10	6 12	7 14	8 16	9 18
99	3 03	4 04	5 05	6 06	7 07	8 08	9 09
101	2 97	3 99	4 95	5 94	6 93	7 92	8 91
102	2 94	3 92	4 90	5 88	6 86	7 84	8 82
103	2 91	3 88	4 85	5 83	6 80	7 77	8 74
104	2 88	3 85	4 81	5 77	6 73	7 69	8 65
105	2 86	3 80	4 76	5 71	6 66	7 61	8 57
106	2 83	3 77	4 72	5 66	6 60	7 55	8 49
107	2 80	3 74	4 67	5 61	6 54	7 47	8 41
108	2 78	3 70	4 63	5 56	6 48	7 41	8 33
109	2 75	3 67	4 59	5 50	6 42	7 34	8 26
110	2 72	3 63	4 54	5 43	6 36	7 27	8 18
115	2 60	3 48	4 34	5 21	6 08	6 95	7 81
120	2 50	3 33	4 16	5 00	5 83	6 66	7 50
130	2 39	3 07	3 80	4 61	5 38	6 15	6 92
140	2 14	2 86	3 57	4 28	5 00	5 71	6 43
150	2 00	2 67	3 33	4 00	4 66	5 33	6 00
160	1 88	2 50	3 12	3 75	4 38	5 00	5 62
170	1 77	2 33	2 91	3 53	4 12	4 70	5 29
180	1 67	2 19	2 73	3 33	3 88	4 44	5 00
190	1 58	2 10	2 63	3 16	3 68	4 21	4 74
200	1 50	2 00	2 50	3 00	3 50	4 00	4 50

TO FIND LENGTH OF DAY OR NIGHT.

At any time of the year add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising for the length of the day. Subtract the time of setting from 12 hours, and to the remainder add the time of rising next morning for the length of the night. These rules are equally true for apparent time.

RATES OF POSTAGE.

POSTAL CARDS, 1 cent each, go without further charge to all parts of the United States, Canada and Mexico. "Reply Postal Cards," with card attached for paid reply, 2 cents each. Cards for foreign countries (within the Postal Union) 2 cents each.

LETTERS, to all parts of the United States, Canada and Mexico, 2 cents for each ounce or fraction thereof. **LOCAL, OR "DROP" LETTERS,** that is, for the city or town where deposited, 2 cents where the carrier system is adopted, and 1 cent where there is no carrier system.

FIRST CLASS.—Letters and all other written matter, whether sealed or unsealed, and all other matter sealed, nailed, sewed, tied, or fastened in any manner so that it cannot be easily examined, 2 cents for each ounce or fraction thereof.

SECOND CLASS.—Only for publishers and newspapers, 1 cent per pound.

NEWSPAPERS AND PERIODICALS (regular publications) can be mailed by the public at the rate of 1 cent for each 4 ounces or fraction thereof.

THIRD CLASS.—Printed matter, in unsealed wrappers only (all matter inclosed in notched envelopes must pay letter rates), 1 cent for each 2 ounces or fraction thereof, which must be fully prepaid. This includes books, circulars, chronicles, engravings, handbills, lithographs, music, pamphlets, proof-sheets and manuscript accompanying the same, reproductions by the electric pen, hectograph, metallograph, papyrograph, and, in short, any reproduction upon paper by any process except handwriting and the copying-press. Limit of weight 4 lbs., except for a single book, which may weigh more.

FOURTH CLASS.—All mailable matter not included in the above, which is so prepared for mailing as to be easily withdrawn from the wrapper and examined, 1 cent per ounce or fraction thereof. Limit of weight 4 lbs. Full prepayment compulsory.

REFORWARDING.—Letters will be forwarded from one post office to another upon the *written* request of the *person addressed*, without additional charge; but *unclaimed packages cannot be returned to the sender* until stamps are furnished to pay the return postage.

PERMISSIBLE WRITING.—No writing is permitted on third or fourth class matter except as follows: The name and address of sender on the outside or inside of package, preceded by the word "from." On the wrapper may also be written the names and number of articles inclosed. The sender is further allowed to mark a weed or passage in a book or paper to which he desires to call special attention. He may also write a simple inscription or dedication upon the cover or blank leaves of a book or pamphlet. There may be attached to articles of merchandise, by tag or label, a mark, number, name, or letter for purpose of identification. Printed circulars may contain the

RATES OF POSTAGE.

written name of the sender, or of the addressee, and the date. Any other writing on third or fourth class matter will subject the package to letter rates of postage, and render the sender liable to a fine of ten dollars for each offence. Printed matter may be enclosed with fourth class matter, but the whole package is subject to the rate of 1 cent per ounce or fraction thereof.

REGISTRATION.—Letters or packages can be registered by adding stamps to the amount of 8 cents to the regular rate.

SPECIAL DELIVERY STAMPS, at 10 cents each, used in addition to regular rates, insures delivery immediately on arrival at office of destination. *These stamps can be used for no other purpose.*

POSTAL NOTES.

Upon payment of a fee of 3 cents each, Postal Notes for any amount under Five Dollars may be purchased at any Money-order Office, payable to bearer at any time within three calendar months from the last day of the month during which it was issued.

MONEY ORDERS.

For Orders not exceeding \$5, five cents; over \$5 and not exceeding \$10, eight cents; over \$10 and not exceeding \$15, ten cents; over \$15 and not exceeding \$30, fifteen cents; over \$30 and not exceeding \$40, twenty cents; over \$40 and not exceeding \$50, twenty-five cents; over \$50 and not exceeding \$60, thirty cents; over \$60 and not exceeding \$70, thirty-five cents; over \$70 and not exceeding \$80, forty cents; over \$80 and not exceeding \$100, forty-five cents. When a larger sum than One Hundred Dollars is required, additional Orders to make it up must be obtained.

FOREIGN POSTAGE.

The rates for **LETTERS** are for the half ounce or fraction thereof, and those for **NEWSPAPERS** for 2 ounces or fraction thereof.

To Great Britain and Ireland, France, Spain, all parts of Germany, including Austria, Denmark, Switzerland, Italy, Russia, Norway, Sweden, Turkey (European and Asiatic), Egypt, letters 5 cents, newspapers 1 cent for each 2 ounces or fraction thereof.

To Australia, letters, via San Francisco, 5 cents; via Brindisi, 5 cents; newspapers, via San Francisco, 1 cent for 2 ounces; via Brindisi, 1 cent for 2 ounces. China, letters, via San Francisco, 5 cents; via Brindisi, 10 cents; newspapers, 2 cents for each 2 ounces. British India, Italian mail, letters 5 cents, newspapers 1 cent for 2 ounces. Japan, letters, via San Francisco, 5 cents; newspapers, 1 cent for 2 ounces.

HELP! In case of Accidents.

Drowning. 1. Loosen clothing, if any. 2. Empty lungs of water by laying body on its stomach and lifting it by the middle so that the head hangs down. Jerk the body a few times. 3. Pull tongue forward, using handkerchief, or pin with string, if necessary. 4. Induce motion of respiration by alternately compressing and expanding the lower ribs, about twenty times a minute. Alternately raising and lowering the arms from the sides up above the head will stimulate the action of the lungs. Let it be done gently but persistently. 5. Apply warmth and friction to extremities. 6. By holding tongue forward, closing the nostrils and pressing the "Adam's apple" back, (so as to close entrance to stomach), direct inflation may be tried. Take a deep breath and breathe it forcibly into the mouth of patient; compress the chest to expel the air, and repeat the operation. 7. **DON'T GIVE UP!** People have been saved after hours of patient, vigorous effort. 8. When breathing begins, get patient into a warm bed, give warm drinks, or spirits in teaspoonfuls, fresh air and quiet.

Burns and Scalds. Cover with Cooking Soda and lay wet cloths over it. Whites of Eggs and Olive Oil. Olive or Linseed Oil, plain, or mixed with Chalk or Whiting.

Lightning. Dash cold water over a person struck.

Sunstroke. Loosen clothing. Get patient into shade and apply ice-cold water to head.

Mad Dog or Snake Bite. Tie cord tight above wound. Suck the wound and canteries with caustic or white-hot iron at once, or cut out adjoining parts with a sharp knife.

Venomous Insects Stings, &c. Apply weak Ammonia, Oil, Salt Water, or Iodine.

Fainting. Place flat on back; allow fresh air and speakable with water.

Tests of Death. Hold mirror to mouth. If firing, moisture will gather. Push pin into flesh. If dead the sole will remain, if alive it will close up.

Cinders in the Eye. Roll soft paper up like a lamp lighter and wet the tip to remove, or use a medicine dropper to draw it out. Rub the other eye.

Fire in one's Clothing. *Don't run*,—especially not down stairs or out of doors. Roll on carpet or wrap in woolen rug or blanket. Keep the head down, so as not to inhale flame.

Fire in a Building. Crawl on the floor. The clearest air is the lowest in the room. Cover head with woolen wrap, wet if possible. Cut holes for the eyes. Don't get excited.

Fire in Kerosene. *Don't use water*, it will spread the flames. Dirt, sand or flour is the best extinguisher; or smother with woolen rug, table cloth or carpet.

Suffocation from inhaling Burning-Gas. Cut into the fresh air as soon as possible and lie down. Keep warm. Take Ammonia,—twenty drops in a tumbler of water, at frequent intervals.

ANTIDOTES FOR POISONS.

First. Send for a Physician.

Second. INDUCE VOMITING, by tickling throat with feather or finger. Drinking hot water or strong Mustard and water. Swallow Sweet Oil or whites of Eggs.

Acids are antidotes for ALKALIES, and vice versa.

SPECIAL POISONS AND ANTIDOTES.

Acids. MURIATIC, OXALIC } Soap-suds, Magnesia,
ACETIC, SULPHURIC (Oil of Vit- } Lime-water.
riol). NITRIC (Aqua Fortis).

Prussic Acid. } Ammonia in water. Dash water
in face.

Carbolic Acid. Flour and water, mucilaginous drinks.

Alkalies. POTASH, LYE, } Vinegar or Lemon juice in
HAETSHORN, AMMONIA. } water.

Arsenic. } Milk, Raw Eggs, Sweet Oil, Lime-
Rat Poison. } water, Flour and water.
Paris Green.

Bug Poison. }
Lead. } Whites of Eggs or Milk in
Saltpetre. } large doses.
Corrosive Sublimite.
Sugar of Lead.
Blue Vitriol.

Chloroform. } Dash cold water on head and chest.
Chloral. } Artificial respiration. Piece of ice in
Ether. } rectum.

Carbonate of Soda. } Soap-suds and mucilaginous
Copperas. } drinks.
Cobalt.

Iodine. } Starch and water. Astringent infu-
Antimony. } sions. Strong tea.
Tartar Emetic.

Mercury AND ITS SALTS. } Whites of Eggs. Milk.
Mucilages.

Nitrate of Silver. } Salt and water.
Lunar Caustic.

Opium. }
Morphine. } Strong coffee, hot bath. Keep
Laudanum. } awake and moving at any
Paregoric. } cost.
Soothing Powders
or Syrup.

Strychnine. } Mustard and water, Sul-
Tinct. of Nux Vomica. } phate of Zinc. Absoluta
quiet. Plug the ears.

AVOID DANGER OF POISONING.

By always keeping every bottle or box well labelled. If an old bottle is used, do not fail to wash off all old labels. Have a place for poisonous medicines, etc., and keep them on the *high shelves*. Promptly destroy all packages which have contained them.

POPULATION OF THE UNITED STATES.

The official count of the returns of the Eleventh Census as finally determined.

STATES AND TERRITORIES.	1880.	1880.
Alabama.....	1,613,017	1,262,505
Alaska.....	.....	.....
Arizona.....	59,620	40,440
Arkansas.....	1,128,179	802,525
California.....	1,208,130	864,694
Colorado.....	412,198	194,327
Connecticut.....	746,258	622,700
Delaware.....	168,493	146,608
District of Columbia.....	230,392	177,624
Florida.....	331,422	269,493
Georgia.....	1,837,353	1,542,780
Idaho.....	84,385	32,610
Illinois.....	3,826,351	3,077,871
Indiana.....	2,192,404	1,978,301
Indian Territory.....	.....	.....
Iowa.....	1,911,896	1,624,615
Kansas.....	1,427,095	996,096
Kentucky.....	1,858,635	1,648,690
Louisiana.....	1,118,587	939,948
Maine.....	661,086	648,936
Maryland.....	1,042,390	994,943
Massachusetts.....	2,238,943	1,783,085
Michigan.....	2,093,889	1,636,837
Minnesota.....	1,301,826	780,773
Mississippi.....	1,289,600	1,131,597
Missouri.....	2,676,184	2,169,380
Montana.....	132,159	39,159
Nebraska.....	1,058,910	452,402
Nevada.....	45,761	62,266
New Hampshire.....	376,530	346,991
New Jersey.....	1,444,933	1,131,116
New Mexico.....	153,593	119,565
New York.....	5,997,853	5,082,871
North Carolina.....	1,617,947	1,399,760
North Dakota.....	182,719	30,909
Ohio.....	3,072,316	3,138,062
Oklahoma.....	61,834	.....
Oregon.....	313,767	174,768
Pennsylvania.....	5,258,014	4,282,891
Rhode Island.....	345,506	276,531
South Carolina.....	1,151,149	995,677
South Dakota.....	328,808	98,208
Tennessee.....	1,767,518	1,542,259
Texas.....	2,235,523	1,591,749
Utah.....	207,905	143,963
Vermont.....	332,422	332,286
Virginia.....	1,655,980	1,512,565
Washington.....	349,390	75,116
West Virginia.....	762,794	618,457
Wisconsin.....	1,686,880	1,315,497
Wyoming.....	60,705	20,780
Total population of U. S.....	62,622,250	50,155,783

POPULATION OF PRINCIPAL CITIES.

	1880.	1880.
Albany, N. Y.....	34,923	30,758
Allentown, Pa.....	105,287	78,692
Baltimore, Md.....	434,439	332,313
Boston, Mass.....	448,477	362,839
Bridgeport, Conn.....	48,866	27,043
Brooklyn, N. Y.....	806,343	590,603
Buffalo, N. Y.....	255,664	155,134
Cambridge, Mass.....	70,028	52,669
Canton, N. J.....	58,312	41,659
Charleston, S. C.....	64,955	49,984
Chicago, Ill.....	309,850	503,185
Cincinnati, O.....	296,908	255,139
Cleveland, O.....	261,353	190,146
Columbus, O.....	88,150	51,647
Dayton, O.....	61,220	38,678
Denver, Col.....	106,713	35,649
Des Moines, Ia.....	50,093	22,408
Detroit, Mich.....	206,876	116,340
Evansville, Ind.....	50,756	29,280
Fall River, Mass.....	74,398	43,966
Grand Rapids, Mich.....	90,278	32,016
Hartford, Conn.....	53,230	42,015
Indianapolis, Ind.....	105,436	75,056
Jersey City, N. J.....	103,003	120,722
Kansas City, Mo.....	132,716	55,785
Lawrence, Mass.....	44,634	39,151
Lincoln, Neb.....	55,154	13,003
Los Angeles, Cal.....	50,395	11,183
Louisville, Ky.....	161,129	123,758
Lowell, Mass.....	77,696	59,475
Lynn, Mass.....	65,727	38,274
Memphis, Tenn.....	64,435	33,592
Milwaukee, Wis.....	204,468	115,587
Minneapolis, Minn.....	164,738	46,887
Nashville, Tenn.....	70,169	43,350
Newark, N. J.....	131,830	136,508
New Haven, Conn.....	81,298	62,882
New Orleans, La.....	242,039	216,099
New York, N. Y.....	5,515,301	1,206,299
Oakland, Cal.....	48,082	34,555
Omaha, Neb.....	140,453	39,428
Pateron, N. J.....	78,347	51,031
Philadelphia, Pa.....	1,046,964	847,170
Pittsburgh, Pa.....	238,617	156,389
Portland, Ore.....	46,385	15,577
Providence, R. I.....	132,146	104,867
Roswell, Ga.....	58,661	43,278
Richmond, Va.....	81,388	63,600
Rochester, N. Y.....	133,896	89,366
Saginaw, Mich.....	46,322	29,541
Saint Joseph, Mo.....	58,324	32,431
Saint Louis, Mo.....	451,770	350,618
Saint Paul, Minn.....	133,156	41,743
Salt Lake City, Utah.....	44,843	20,768
San Francisco, Cal.....	256,937	238,959
Scranton, Pa.....	75,215	46,860
Spartanburg, S. C.....	44,179	33,340
Syracuse, N. Y.....	88,143	51,792
Toledo, O.....	81,434	50,137
Trenton, N. J.....	57,458	29,810
Troy, N. Y.....	60,836	56,747
Washington, D. C.....	230,392	177,624
Wilmington, Del.....	61,431	42,478
Worcester, Mass.....	84,655	58,291

RELATIVE RANK OF CITIES.

In 1870 there were but fourteen cities each containing more than 100,000 inhabitants. In 1880 this number had increased to twenty, and in 1890 to twenty-eight.

In 1880 there was but one city, New York, which had a population in excess of a million. In 1890 there were three, New York, Chicago, and Philadelphia.

The number and relative rank of cities having a population of 100,000 or more at the date of each of these censuses are set forth in the following table.

	RANK.		
	1890.	1880.	1870.
New York, N. Y.	1	1	1
Chicago, Ill.	2	4	5
Philadelphia, Pa.	3	2	2
Brooklyn, N. Y.	4	3	3
Saint Louis, Mo.	5	6	4
Boston, Mass.	6	5	7
Baltimore, Md.	7	7	6
San Francisco, Cal.	8	9	10
Cincinnati, O.	9	8	8
Cleveland, O.	10	11	..
Buffalo, N. Y.	11	13	11
New Orleans, La.	12	10	9
Pittsburgh, Pa.	13	12	..
Washington, D. C.	14	14	12
Detroit, Mich.	15	18	..
Milwaukee, Wis.	16	19	..
Newark, N. J.	17	15	13
Minneapolis, Minn.	18	..	..
Jersey City, N. J.	19	17	..
Louisville, Ky.	20	16	14
Omaha, Neb.	21	..	..
Rochester, N. Y.	22	..	..
Saint Paul, Minn.	23	..	..
Kansas City, Mo.	24	..	..
Providence, R. I.	25	20	..
Denver, Col.	26	..	..
Indianapolis, Ind.	27	..	..
Allegheny City, Pa.	28	..	..

VALUES IN UNITED STATES MONEY

OF THE

PURE GOLD OR SILVER

REPRESENTING RESPECTIVELY THE MONETARY UNITS
AND STANDARD COINS OF FOREIGN COUNTRIES.

The first section of the Act of March 3, 1871, provides "that the value of Foreign Coin, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the values of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the first day of January by the Secretary of the Treasury."

The estimates of values contained in the following table are those made by the Director of the Mint, January 1st, 1890, in compliance with the above stated provisions of law.

COUNTRY.	MONETARY UNIT.	STANDARD.	VALUE.
			P. C. M.
Argentina Repub.	Peso	Gold & silv.	0 60 5
Austria	Florin	Silver	0 24 1
Belgium	Franc	Silver	0 60 8
Bolivia	Boliviano	Gold	0 54 6
Brazil	Milreis of 1000 reis.	Gold	0 54 6
British America.	Dollar	Gold	0 60 8
Cent'l Am. States.	Peso	Silver	0 60 8
Chili	Peso	Gold & silv.	0 54 2
China	Tael. { Haikwan. (Customs).	Silver	1 14 8
Cuba	Peso	Gold & silv.	0 54 6
Denmark	Crown	Gold	0 60 8
Ecuador	Sacra	Silver	0 60 8
Egypt	Pound (100 piastres).	Gold	4 94 3
France	Franc	Gold & silv.	0 10 1
German Empire.	Mark	Gold	0 21 8
Great Britain.	Pound sterling.	Gold	0 60 8
Greece	Drachma	Gold & silv.	0 19 1
Haiti	Gourde	Gold & silv.	0 54 6
India	Rupree of 16 annas.	Silver	0 33 2
Italy	Lira	Gold & silv.	0 10 1
Japan	Yen	Gold	0 60 8
Liberia	Dollar	Silver	0 75 9
Mexico	Dollar	Gold	1 0 0
Netherlands	Florin	Silver	0 75 8
Norway	Crown	Gold & silv.	0 40 2
Peru	Sol	Gold	0 16 8
Portugal	Milreis of 1000 reis.	Gold	0 60 8
Russia	Roubli. of 100 cop.	Silver	0 55 8
Spain	Peseta of 100 centims.	Gold & silv.	0 19 1
Sweden	Crown	Gold	0 25 8
Switzerland	Franc	Gold & silv.	0 19 1
Typhoid	Malakof of 20 piast.	Silver	0 60 9
Turkey	Piastre	Gold	0 4 4
U. S. of Colombia.	Peso	Silver	0 60 8
Venezuela	Bolivar	Silver	0 14 9

INTEREST LAWS OF ALL THE STATES.

STATES AND TERRITORIES.	PENALTY OF USURY.	Legal.	Special.
Alabama.....	Loss of interest.....	8	.....
Alaska.....	Forfeiture of debt.....	8	30 per ct.
Arizona.....	No penalty.....	7	No limit.
Arkansas.....	Forfeiture of principal & interest.....	10	10 per ct.
California.....	No penalty.....	7	No limit.
Colorado.....	No penalty.....	8	No limit.
Connecticut.....	No penalty.....	6	4 per ct.
Dakota.....	Forfeiture of contract.....	7	12 per ct.
Delaware.....	Forfeiture of contract.....	6	6 per ct.
District of Col.....	Forfeiture of all interest.....	6	30 per ct.
Florida.....	No penalty.....	8	No limit.
Georgia.....	Forfeiture of excess.....	2	8 per ct.
Idaho.....	Forfeiture of 3 times excess of int.....	10	35 per ct.
Illinois.....	Forfeiture of all interest.....	3	7 per ct.
Indiana.....	Forfeiture of 1st. over 6 per cent.....	6	8 per ct.
Iowa.....	Forfeiture of interest and costs.....	4	8 per ct.
Kansas.....	Forfeiture of excess over 10 per cent.....	4	10 per ct.
Kentucky.....	Forfeiture of excess.....	6	6 per ct.
Louisiana.....	Forfeiture of interest.....	3	8 per ct.
Maine.....	No penalty.....	6	No limit.
Maryland.....	Forfeiture of excess.....	6	6 per ct.
Massachusetts.....	No penalty—6 per ct. on judgments.....	6	No limit.
Michigan.....	Forfeiture of excess.....	6	8 per ct.
Minnesota.....	Forfeiture of contract.....	7	10 per ct.
Mississippi.....	Forfeiture of all interest.....	6	10 per ct.
Missouri.....	Forfeiture of all interest.....	6	8 per ct.
Montana.....	No penalty.....	7	No limit.
Nebraska.....	Forfeiture of all interest & costs.....	7	10 per ct.
Nevada.....	No penalty.....	3	No limit.
New Hampshire.....	Forfeiture of 3 times excess of int.....	6	6 per ct.
New Jersey.....	Forfeiture of all interest.....	6	6 per ct.
New Mexico.....	No penalty.....	6	12 per ct.
New York.....	Forfeiture of contract.....	4	6 per ct.
North Carolina.....	Forfeiture of double amt. of int.....	4	8 per ct.
Ohio.....	Forfeiture of excess.....	4	8 per ct.
Oregon.....	Forfeiture of prin. int. & costs.....	8	16 per ct.
Pennsylvania.....	Forfeiture of excess, Act of 1828.....	6	6 per ct.
Rhode Island.....	Forfeiture, unless by contract.....	6	No limit.
South Carolina.....	Forfeiture of interest.....	7	8 per ct.
Tennessee.....	Forfeiture of over 6 per cent.....	4	6 per ct.
Texas.....	Forfeiture of interest.....	6	10 per ct.
Utah.....	No penalty.....	8	No limit.
Vermont.....	Forfeiture of excess.....	6	4 per ct.
Virginia.....	Forfeiture of excess.....	6	4 per ct.
Washington.....	No penalty.....	10	No limit.
West Virginia.....	Forfeiture of excess.....	6	30 per ct.
Wisconsin.....	Forfeiture of all interest.....	7	30 per ct.
Wyoming.....	No penalty.....	12	No limit.

* Also punishable as a misdemeanor. Banks forfeit interest only, or double the interest if charged in advance.

† Also 6 per cent. on judgments.

PRESIDENTS OF THE UNITED STATES.

NAME.	Born.	Investment.	Term of Office.	Death.	Successor.	Political Party.
GEORGE WASHINGTON.....	Feb. 22, 1732	April 30, 1789	4 years.....	Dec. 14, 1799	John Adams	Federal.
JOHN ADAMS.....	Oct. 19, 1735	Mar. 4, 1789	" " " " " "	July 4, 1826	Thomas Jefferson	Republican.
THOMAS JEFFERSON.....	Jan. 6, 1743	Mar. 4, 1789	" " " " " "	July 4, 1826	James Madison	"
JAMES MADISON.....	Mar. 16, 1751	Mar. 4, 1789	" " " " " "	June 28, 1836	James Monroe	Coalition.
JAMES MONROE.....	April 28, 1758	Mar. 4, 1789	" " " " " "	Feb. 8, 1835	John Quincy Adams	Democrat.
JOHN QUINCY ADAMS.....	Jan. 11, 1767	Mar. 4, 1789	" " " " " "	Feb. 21, 1848	Andrew Jackson	Coalition.
ANDREW JACKSON.....	Mar. 15, 1767	Mar. 4, 1789	" " " " " "	June 8, 1845	John Tyler	Whig.
MARTIN VAN BUREN.....	Dec. 5, 1782	Mar. 4, 1789	" " " " " "	July 24, 1862	Franklin Pierce	Democrat.
JOHN TYLER.....	Feb. 9, 1790	Mar. 4, 1789	" " " " " "	April 18, 1862	James Buchanan	Whig.
FRANKLIN PIERCE.....	Nov. 23, 1804	Mar. 4, 1789	" " " " " "	Oct. 10, 1869	Abraham Lincoln	Democrat.
JAMES BUCHANAN.....	April 23, 1791	Mar. 4, 1789	" " " " " "	July 9, 1869	Andrew Johnson	Whig.
ABRAHAM LINCOLN.....	Feb. 12, 1809	Mar. 4, 1789	" " " " " "	April 15, 1865	Andrew Johnson	Democrat.
ZACHARY TAYLOR.....	Sept. 24, 1784	Mar. 4, 1789	" " " " " "	Mar. 9, 1850	Millard Fillmore	Republican.
MILLARD FILLMORE.....	Nov. 23, 1800	Mar. 4, 1789	" " " " " "	Mar. 8, 1850	Franklin Pierce	"
FRANKLIN PIERCE.....	Nov. 23, 1804	Mar. 4, 1789	" " " " " "	July 9, 1869	Abraham Lincoln	Democrat.
ABRAHAM LINCOLN.....	Feb. 12, 1809	Mar. 4, 1789	" " " " " "	April 15, 1865	Andrew Johnson	Whig.
ANDREW JOHNSON.....	Dec. 29, 1808	Mar. 4, 1789	" " " " " "	April 27, 1875	Ulysses S. Grant	Democrat.
ULYSSES S. GRANT.....	Jan. 22, 1822	Mar. 4, 1789	" " " " " "	Sept. 21, 1873	Rutherford B. Hayes	"
RUTHERFORD B. HAYES.....	Oct. 4, 1827	Mar. 4, 1789	" " " " " "	Mar. 1, 1893	James A. Garfield	Republican.
JAMES A. GARFIELD.....	Nov. 19, 1829	Mar. 4, 1789	" " " " " "	Oct. 19, 1881	Chester A. Arthur	"
CHESTER A. ARTHUR.....	Oct. 5, 1829	Mar. 4, 1789	" " " " " "	Mar. 18, 1886	Grover Cleveland	Democrat.
GROVER CLEVELAND.....	Mar. 18, 1837	Mar. 4, 1789	" " " " " "	Nov. 4, 1894	Benjamin Harrison	"
BENJAMIN HARRISON.....	Aug. 20, 1833	Mar. 4, 1789	" " " " " "	Mar. 13, 1897	Grover Cleveland	Democrat.

LEGAL HOLIDAYS.

In most of the States when the holiday falls on Sunday the Monday following is the holiday. Notes must be paid on the Saturday preceding.

- ALABAMA—Jan. 1, Feb. 22, July 4, Dec. 25.
 ARIZONA—Jan. 1, Feb. 22, May 30, July 4, Dec. 25, any day of Thanksgiving or general territorial election, or special election called by the Governor.
 CALIFORNIA—Jan. 1, Feb. 22, May 30, July 4, Sept. 9, Thanksgiving, Dec. 25, a State or general election.
 COLORADO—Jan. 1, Feb. 22, May 30, July 4, Thanksgiving, Dec. 25.
 CONNECTICUT—Jan. 1, Feb. 22, May 30, July 4, Sept. 1, Thanksgiving, Dec. 25, Fast Day.
 DELAWARE—Jan. 1, Feb. 22, July 4, Thanksgiving, Dec. 25.
 FLORIDA—Jan. 1, Feb. 22, July 4, any general election day, Thanksgiving, Dec. 25.
 GEORGIA—Jan. 1, Feb. 22, April 25, July 4, any Thanksgiving, Dec. 25.
 IDAHO—Same as Arizona.
 ILLINOIS—Jan. 1, Feb. 22, May 30, July 4, Election Day, Thanksgiving, Dec. 25.
 INDIANA—Jan. 4, public Fast, July 4, Thanksgiving, Dec. 25.
 IOWA—Jan. 1, May 30, July 4, Thanksgiving, Dec. 25.
 KANSAS—Jan. 1, May 30, July 4, public Fast, Thanksgiving, Dec. 25.
 KENTUCKY—Jan. 1, Feb. 22, July 4, public Fast, Thanksgiving, Dec. 25.
 LOUISIANA—Jan. 1 and 8, Feb. 22, Mardi Gras, Mar. 4 in New Orleans, Good Friday, July 4, Dec. 25.
 MAINE—Jan. 1, Feb. 22, May 30, public Fast, July 4, Thanksgiving, Dec. 25.
 MARYLAND—Jan. 1, Feb. 22, Good Friday, July 4, Thanksgiving, Dec. 25, and general and Congressional election days.
 MASSACHUSETTS—Feb. 22, April 19, May 30, July 4, first Monday in Sept., Thanksgiving, Dec. 25.
 MICHIGAN—Jan. 1, Feb. 22, May 30, July 4, Dec. 25, and any day appointed by the Governor or President for Fasting and Thanksgiving.
 MINNESOTA—Jan. 1, Feb. 22, Good Friday, July 4, Thanksgiving, Dec. 25.
 MISSISSIPPI—Jan. 1, July 4, Dec. 25.
 MISSOURI—Jan. 1, Feb. 22, July 4, Dec. 25, any general or State election day, any Thanksgiving day.
 MONTANA—Jan. 1, Feb. 22, May 30, public Fast, July 4, Thanksgiving, Dec. 25.
 NEBRASKA—Jan. 1, Feb. 22, April 22, May 30, July 4, Sept. 1, public Fast, Thanksgiving, Dec. 25.
 NEVADA—Jan. 1, Feb. 22, July 4, Thanksgiving, Dec. 25.

LEGAL HOLIDAYS.—CONTINUED.

- NEW HAMPSHIRE—Feb. 22, Fast Day, May 30, July 4, Thanksgiving, Dec. 25, and any day on which a general election is held for members of the Legislature.
 NEW JERSEY—Jan. 1, Feb. 22, May 30, July 4, first Monday in Sept., Thanksgiving and Fast Day, Dec. 25, every Saturday *p. m.*, and any general election day. Notes and drafts payable on secular or business day next succeeding each holiday.
 NEW MEXICO—Jan. 1, July 4, Dec. 25, and all days for Fasting or Thanksgiving. Notes due on holidays are payable on the next business day thereafter.
 NEW YORK—Jan. 1, Feb. 22, May 30, July 4, the first Monday of Sept. (Labor day), Dec. 25, any general election day, every Saturday from noon until midnight, and any day appointed as a day of Thanksgiving, or Fasting.
 NORTH CAROLINA—Jan. 1, Feb. 22, May 10, May 30, July 4, Thanksgiving, Dec. 25. Notes and drafts payable on secular or business day next succeeding each holiday.
 NORTH DAKOTA—Jan. 1, Feb. 22, May 30, July 4, Thanksgiving, public Fast, Dec. 25, and general State or National election.
 OHIO—Jan. 1, Feb. 22, May 30, July 4, Thanksgiving, Dec. 25.
 OREGON—Jan. 1, Feb. 22, May 30, first Saturday in June, July 4, public Fast, Thanksgiving, Dec. 25, and every general election day.
 PENNSYLVANIA—Jan. 1, Feb. 22, Good Friday, July 4, Sept. 1, Thanksgiving, Dec. 25, Decoration Day.
 RHODE ISLAND—Feb. 22, May 30, July 4, Thanksgiving, Dec. 25.
 SOUTH CAROLINA—Jan. 1, Feb. 22, July 4, National Thanksgiving, Dec. 25, general election days.
 SOUTH DAKOTA—See North Dakota.
 TENNESSEE—Jan. 1, July 4, Thanksgiving, Dec. 25.
 TEXAS—Jan. 1, Feb. 22, March 2, April 21, July 4, Dec. 25, and all days appointed as days of Fasting or Thanksgiving, and every State election day.
 UTAH—Jan. 1, Feb. 22, May 30, July 4, July 24, Thanksgiving, Fast days, Dec. 25.
 VERMONT—Jan. 1, Feb. 22, May 30, July 4, Thanksgiving, Dec. 25.
 VIRGINIA—Jan. 1, Feb. 22, Fast Day, July 4, Thanksgiving, Dec. 25.
 WASHINGTON—Jan. 1, Feb. 22, Decoration Day, July 4, Thanksgiving, Dec. 25, days of general and special election.
 WEST VIRGINIA—Jan. 1, Feb. 22, July 4, Dec. 25, or a day of National Thanksgiving.
 WISCONSIN—Jan. 1, Feb. 22, May 30, June 10, July 4, Thanksgiving, Dec. 25, general election day.
 WYOMING—Jan. 1, Feb. 22, May 30, July 4, Thanksgiving, Dec. 25.

STANDARD TIME.

In this Almanac the risings and settings of the Sun and Moon are given in local mean time, as heretofore. The Tides are given in STANDARD TIME.

To change to STANDARD TIME add or subtract the *minutes* as given below, according as they are marked *plus* or *minus*.

Standard Time Divisions as adopted by the Railroads.

EASTERN STANDARD—75th Meridian. Canada, between Quebec and Detroit,—U. S. east of Buffalo, N. Y.; Pittsburg, Pa.; Wheeling and Huntington, W. Va.; Bristol, Tenn.; Charlotte, N. C., and Augusta, Ga.

CENTRAL STANDARD—90th Meridian. West from "Eastern" limits, as above, to Broadview, Canada; to the Missouri River in Dakota; North Platte and McCook, Nebraska; Wallace and Dodge City, Kansas; Toiyah and Sanderson, Texas.

MOUNTAIN STANDARD—105th Meridian. West from "Central" limits to Helena, Montana; Ogden, Utah; Needles and Yuma, Arizona.

PACIFIC STANDARD—120th Meridian. West from "Mountain" limits to coast.

Correction for the following Cities.

Eastern Standard.		Central Standard.	
75° Longitude.		90° Longitude.	
Minutes.		Minutes.	
Banger, Me.	- 25	Cleveland, Ohio.	- 33
Augusta, Me.	- 21	Columbus, Ohio.	- 28
Portland, Me.	- 19	Detroit, Mich.	- 28
Boston, Mass.	- 16	Toledo, Ohio.	- 26
Newport, R. I.	- 15	Dayton, Ohio.	- 23
Providence, R. I.	- 14	Cincinnati, Ohio.	- 22
Concord, N. H.	- 14	Louisville, Ky.	- 18
New London, Conn.	- 11	Indianapolis, Ind.	- 16
Springfield, Mass.	- 10	Chicago, Ill.	- 10
Montpelier, Vt.	- 10	Milwaukee, Wis.	- 8
Hartford, Conn.	- 10	Springfield, Ill.	- 2
Montreal, Que.	- 6	Memphis, Tenn.	0
Albany, N. Y.	- 5	New Orleans, La.	0
New York, N. Y.	- 4	St. Louis, Mo.	+ 1
Utica, N. Y.	+ 1	Rock Island, Ill.	+ 3
Philadelphia, Pa.	+ 1	Dubuque, Iowa.	+ 3
Syracuse, N. Y.	+ 5	Burlington, Iowa.	+ 5
Baltimore, Md.	+ 6	St. Paul, Minn.	+ 12
Washington, D. C.	+ 8	Des Moines, Iowa.	+ 14
Rochester, N. Y.	+ 11	Kansas City, Mo.	+ 18
Buffalo, N. Y.	+ 16	Galveston, Texas.	+ 19
Pittsburg, Pa.	+ 20	Omaha, Neb.	+ 24

Mountain Standard.		Pacific Standard.	
105° Longitude.		120° Longitude.	
Denver, Col.	0	Sacramento, Cal.	+ 6
Salt Lake City, Utah, +	28	San Francisco, Cal.	+ 30

HIGH TIDE.

(STANDARD TIME.)

Day of Mo.	JANUARY.		FEBRUARY.		MARCH.	
	Boat. Tide.	N. Y. Tide.	Boat. Tide.	N. Y. Tide.	Boat. Tide.	N. Y. Tide.
	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.
1	2 34	11 46	3 7	0 5	1 35	11 9
2	3 8	0 6	3 50	0 49	2 36	11 55
3	3 48	0 47	4 41	1 40	3 22	0 20
4	4 32	1 31	5 43	2 41	4 19	1 18
5	5 21	2 19	6 52	3 49	5 26	2 24
6	6 16	3 14	8 6	5 3	6 41	3 38
7	7 17	4 14	9 15	6 13	7 56	4 52
8	8 22	5 18	10 19	7 16	9 2	6 6
9	9 27	6 25	11 13	8 7	10 0	6 58
10	10 31	7 27	.....	8 58	10 50	7 45
11	11 28	8 22	0 23	9 44	11 34	8 29
12	.....	9 20	1 8	10 26	.....	9 14
13	0 47	10 9	1 51	11 7	0 37	9 57
14	1 36	10 51	2 35	11 55	1 21	10 38
15	2 23	11 41	3 21	0 20	2 5	11 24
16	3 7	0 4	4 13	1 12	2 54	.....
17	3 55	0 53	5 12	2 11	3 48	0 47
18	4 47	1 45	6 17	3 15	4 40	1 47
19	5 42	2 40	7 22	4 19	5 52	2 50
20	6 41	3 39	8 21	5 18	6 55	3 51
21	7 43	4 39	9 15	6 12	7 52	4 49
22	8 41	5 38	10 2	7 0	8 43	5 40
23	9 36	6 34	10 42	7 38	9 26	6 25
24	10 26	7 23	11 19	8 13	10 7	7 4
25	11 10	8 4	11 53	8 50	10 44	7 39
26	11 48	8 45	0 10	9 25	11 17	8 12
27	0 7	9 25	0 43	9 58	11 52	8 49
28	0 44	10 2	1 18	10 31	0 10	9 27
29	1 19	10 32	.....	.....	0 48	10 5
30	1 54	11 6	.....	.....	1 29	10 47
31	2 29	11 44	.....	.....	2 16	11 38

THE SIZE OF THE SEAS. 1894

	Miles long.
Mediterranean	2,000
Caribbean	1,800
Red	1,400
Black	982
Baltic	600

HIGH TIDE.

(STANDARD TIME.)

Day of Mo.	APRIL.		MAY.		JUNE.	
	BOST. TIDE.	N. Y. TIDE.	BOST. TIDE.	N. Y. TIDE.	BOST. TIDE.	N. Y. TIDE.
	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.
1	3 8	0 6	4 5	1 4	5 45	2 43
2	4 10	1 9	5 10	2 8	6 44	3 41
3	5 20	2 18	6 14	3 12	7 40	4 36
4	6 33	3 30	7 16	4 13	8 34	5 31
5	7 41	4 37	8 12	5 8	9 27	6 25
6	8 41	5 39	9 3	6 1	10 18	7 15
7	9 34	6 32	9 51	6 49	11 8	8 1
8	10 22	7 19	10 40	7 35	11 54	8 52
9	11 6	7 59	11 24	8 18	0 18	9 40
10	11 47	8 44	.....	9 8	1 5	10 24
11	0 9	9 30	0 34	9 57	1 49	11 5
12	0 54	10 51	1 23	10 43	2 32	11 49
13	1 43	11 2	2 13	11 32	3 12	0 10
14	2 33	11 56	3 1	.....	3 54	0 52
15	3 25	0 23	3 49	0 48	4 38	1 36
16	4 21	1 19	4 39	1 37	5 24	2 22
17	5 19	2 18	5 30	2 27	6 12	3 10
18	6 18	3 15	6 20	3 17	7 4	4 1
19	7 11	4 7	7 7	4 4	7 58	4 54
20	7 59	4 55	7 54	4 50	8 53	5 51
21	8 43	5 40	8 41	5 38	9 49	6 47
22	9 25	6 23	9 26	6 24	10 46	7 42
23	10 5	7 2	10 13	7 10	11 40	8 36
24	10 43	7 39	11 0	7 55	0 6	9 32
25	11 23	8 17	11 49	8 46	0 59	10 22
26	.....	9 2	0 15	9 40	1 52	11 11
27	0 27	9 48	1 8	10 31	2 40	.....
28	1 15	10 36	2 3	11 25	3 28	0 26
29	2 8	11 31	2 57	.....	4 19	1 18
30	3 5	0 2	3 51	0 50	5 13	2 11
31	.....	.....	4 47	1 46	.....	.....

AREA OF OCEANS IN SQUARE MILES.

Pacific	80,000,000
Atlantic	40,000,000
Indian	20,000,000
Southern	10,000,000
Arctic	5,000,000

HIGH TIDE.

(STANDARD TIME.)

Day of Mo.	JULY.		AUGUST.		SEPTEMBER.	
	BOST. TIDE.	N. Y. TIDE.	BOST. TIDE.	N. Y. TIDE.	BOST. TIDE.	N. Y. TIDE.
	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.
1	6 9	3 7	7 52	4 49	9 23	6 21
2	7 10	4 7	8 53	5 50	10 8	7 5
3	8 9	5 6	9 47	6 45	10 46	7 41
4	9 7	6 5	10 35	7 31	11 20	8 14
5	10 3	7 1	11 16	8 10	11 53	8 50
6	10 53	7 48	11 53	8 52	0 9	9 24
7	11 38	8 34	0 11	9 27	0 43	9 58
8	.....	9 18	0 45	10 0	1 18	10 32
9	0 40	9 58	1 19	10 32	1 57	11 12
10	1 19	10 33	1 53	11 5	2 39	11 59
11	1 57	11 9	2 29	11 45	3 27	0 26
12	2 33	11 48	3 8	0 6	4 26	1 24
13	3 10	0 7	3 54	0 52	5 34	2 33
14	3 49	0 48	4 47	1 47	6 48	3 45
15	4 33	1 31	5 52	2 50	7 59	4 56
16	5 23	2 21	7 2	4 0	9 4	6 1
17	6 21	3 19	8 15	5 12	9 58	6 55
18	7 24	4 21	9 21	6 19	10 46	7 42
19	8 30	5 26	10 20	7 17	11 30	8 25
20	9 34	6 33	11 11	8 6	.....	9 11
21	10 36	7 31	11 57	8 54	0 35	9 56
22	11 29	8 24	0 19	9 39	1 21	10 40
23	.....	9 18	1 3	10 21	2 10	11 31
24	0 43	10 4	1 47	11 4	3 2	.....
25	1 30	10 47	2 33	11 53	4 0	0 29
26	2 15	11 33	3 22	0 20	5 2	2 0
27	3 0	.....	4 19	1 18	6 7	3 5
28	3 47	0 46	5 22	2 20	7 6	4 3
29	4 42	1 41	6 29	3 26	8 0	4 57
30	5 43	2 41	7 35	4 31	8 48	5 45
31	6 47	3 44	8 33	5 30	.....	.....

SIZE OF THE GREAT LAKES.

	Miles long.	Miles wide.
Superior	380	120
Michigan	330	60
Ontario	170	40
Champlain	123	12

HIGH TIDE.

(STANDARD TIME.)

Day of Mo.	OCTOBER.		NOVEMBER.		DECEMBER.	
	Boat. Tide.	N. Y. Tide.	Boat. Tide.	N. Y. Tide.	Boat. Tide.	N. Y. Tide.
	Morning.	Morning.	Morning.	Morning.	Morning.	Morning.
1	9 30	6 28	10 6	7 4	10 18	7 15
2	10 9	7 6	10 46	7 41	11 8	8 1
3	10 45	7 40	11 26	8 20	11 55	8 53
4	11 18	8 12	.....	9 7	0 21	9 45
5	11 53	8 50	0 32	9 54	1 13	10 33
6	0 11	9 29	1 21	10 42	2 4	11 24
7	0 59	10 9	2 13	11 36	2 54	.....
8	1 34	10 51	3 7	0 5	3 45	0 43
9	2 21	11 44	4 4	1 3	4 39	1 37
10	3 15	0 13	5 4	2 3	5 35	2 33
11	4 16	1 15	6 6	3 3	6 32	3 30
12	5 23	2 21	7 6	4 2	7 32	4 28
13	6 31	3 29	8 3	5 0	8 30	5 28
14	7 37	4 34	8 57	5 55	9 27	6 25
15	8 35	5 33	9 49	6 47	10 23	7 20
16	9 27	6 25	10 40	7 35	11 15	8 10
17	10 17	7 13	11 29	8 23	.....	9 0
18	11 3	7 58	.....	9 17	0 27	9 48
19	11 48	8 45	0 44	10 6	1 13	10 30
20	0 11	9 34	1 34	10 54	1 56	11 11
21	0 10	10 22	2 24	11 43	2 37	11 53
22	1 53	11 14	3 11	0 9	3 16	0 14
23	2 45	.....	3 58	0 57	3 56	0 55
24	3 39	0 38	4 45	1 44	4 38	1 37
25	4 35	1 34	5 34	2 32	5 26	2 24
26	5 32	2 30	6 21	3 19	6 14	3 12
27	6 25	3 23	7 9	4 6	7 8	4 5
28	7 16	4 13	7 56	4 52	8 4	5 0
29	8 3	4 59	8 43	5 41	9 0	5 58
30	8 45	5 43	9 30	6 28	9 57	6 55
31	9 26	6 24	.....	10 53	7 48	.....

SIZE OF THE GREAT LAKES.

	Miles long.	Miles wide.
Erie	270	50
Huron	260	90
Winipeg	240	40
Atchafalca	200	20

TIDE TABLE

(The following values are derived from late determinations of the UNITED STATES COAST SURVEY.)

To find the time (Standard Time) of High Water at any of the following places, add or subtract the hours and minutes opposite the name of place in the following Table, to or from the hours and minutes of High Water at NEW YORK for the required day, as found in the *Calendar Page*.

EASTERN STANDARD.

	H.	M.	Feet.
Eastport, Me.	add	2 33	18.2
Ivy Harbor, Me.	"	2 24	10.4
Rockland, Me.	"	2 42	9.6
Thomaston, Me.	"	2 55	9.4
Portland, Me.	"	2 55	9.3
Bath, Me.	"	3 49	6.1
Portsmouth, N. H.	"	3 1	2.6
Isle of Shoals, N. H.	"	2 57	8.7
Newburyport, Mass.	"	1 7	7.5
Glocester, Mass.	"	1 47	8.9
Salem, Mass.	"	2 57	9.2
Nahant, Mass.	"	2 50	9.4
Plymouth, Mass.	"	2 50	10.2
Elizabeth, Mass.	"	3 7	9.2
Provincetown, Mass.	"	3 55	2.0
Nantucket, Mass.	"	4 6	3.0
Vineyard Haven, Mass.	"	3 22	1.6
Wood's Hole, North Side, Mass.	sub.	0 21	4.0
Wood's Hole, South Side, Mass.	add	0 14	1.6
New Bedford Entrance	"	"	"
(Dampier Rock), Mass.	sub.	0 20	1.7
Newport, R. I.	"	0 31	1.9
Bristol, R. I.	"	0 25	4.7
Point Judith, R. I.	"	0 25	2.1
Sandy Hook, N. J.	"	0 18	2.7
Watch Hill, R. I.	add	0 35	2.7
Seemington, Conn.	"	0 54	2.7
New London, Conn.	"	1 14	2.6
New Haven, Conn.	"	2 57	6.0
Bridgeport, Conn.	"	2 59	6.5
Monk's Point, L. I.	"	0 4	1.9
Throg's Neck, N. Y.	"	3 13	7.1
Cape May Landing, N. J.	"	0 11	4.8
Newcastle, Del.	"	3 53	6.5
Philadelphia, Penn.	"	5 46	6.0
Annapolis, Md.	sub.	3 18	0.0
Baltimore, Md.	"	3 21	1.3
Richmond, Va.	"	3 24	1.6
Hatteras Inlet, N. C.	"	0 35	2.8
Beaufort, N. C.	"	0 35	2.8
Charleston (C. H. Wharf), S. C.	"	0 19	5.1

CENTRAL STANDARD.

Fort Palaski (Savannah Ent.), Ga.	sub.	1 21	6.9
Savannah (Dry Dock Wharf), Ga.	"	0 26	6.5
St. Augustine, Fla.	"	0 17	4.2
Key West, Fla.	add	0 54	2.2
Campa Key (Egmont Key), Fla.	"	3 9	1.4
Cedar Keys (Depot Key), Fla.	"	4 52	2.6

SHORT METHOD

FOR CALCULATING INTEREST.

Multiply the principal by as many hundreds as there are days, and

For 4 per cent.	Divide by 90
" 5 " "	" 72
" 6 " "	" 60
" 7 " "	" 52
" 8 " "	" 45
" 9 " "	" 40
" 10 " "	" 36
" 12 " "	" 30

EXAMPLE.—Interest on \$50 for 30 days at 4%
50 x .30 = 15.00, which divided by 90 = 16 $\frac{2}{3}$ cents—the
required result.

FESTIVALS AND FASTS.

Epiphany	Jan. 6
Septuagesima Sunday	Feb. 10
Quinquagesima—Shrove Sunday	Feb. 24
Ash Wednesday	Mar. 7
First Sunday in Lent	Mar. 13
St. Patrick	Mar. 17
Palm Sunday	April 2
Good Friday	April 12
Easter Sunday	April 14
Low Sunday	April 21
Rogation Sunday	May 10
Ascension Day—Holy Thursday	May 23
Pentecost—Whit Sunday	June 2
Trinity Sunday	June 9
Corpus Christi	June 13
St. John Baptist	June 24
Michaelmas Day	Sept. 29
St. Andrew	Nov. 30
First Sunday in Advent	Dec. 1
Christmas Day	Dec. 25

THE SEASONS.

	Eastern Standard.	Central Standard.
Vernal Equinox.....	Mar. 20, 4h. A.	Mar. 20, 3h. A.
Summer Solstice.....	June 21, 6h. A.	June 21, 5h. A.
Autumnal Equinox.....	Sept. 23, 2h. A.	Sept. 23, 1h. A.
Winter Solstice.....	Dec. 21, 9h. A.	Dec. 21, 8h. A.
	Mountain Standard.	Pacific Standard.
Vernal Equinox.....	Mar. 20, 2h. A.	Mar. 20, 1h. A.
Summer Solstice.....	June 21, 10h. A.	June 21, 9h. A.
Autumnal Equinox.....	Sept. 23, 6h. A.	Sept. 23, 5h. A.
Winter Solstice.....	Dec. 21, 7h. A.	Dec. 21, 6h. A.

CHRONOLOGICAL CYCLES.

Dominical Letter	F.
Epoct	4
Lunar Cycle, or Golden Number	15
Solar Cycle	28
Roman Indiction	8
Julian Period	6668

ECLIPSES FOR THE YEAR.

In the year 1805 there will be five Eclipses,—three of the Sun and two of the Moon.

I. A TOTAL ECLIPSE OF THE MOON, March 16-17. Visible entire to North and South America, and the Atlantic Ocean; and more or less to Europe, Africa, and the eastern Pacific Ocean. Occurring as follows:—

STANDARD:—	Eastern.	Central.	Mountain.
	P. M. M.	P. M. M.	P. M. M.
Moon enters Penumbra.....	28 7 55 A.	29 0 57 A.	29 5 55 A.
Moon enters Shadow.....	18 8 55 A.	19 7 57 A.	19 6 55 A.
Total Eclipse begins.....	29 2 31 A.	29 6 54 A.	29 7 51 A.
Middle of Eclipse.....	29 29 30 A.	30 0 19 A.	30 8 39 A.
Total Eclipse ends.....	30 31 27 A.	30 10 27 A.	30 9 25 A.
Moon leaves Shadow.....	31 0 25 M.	30 11 25 A.	30 10 25 A.
Moon leaves Penumbra.....	31 1 21 M.	31 0 21 M.	30 11 21 A.

First contact of shadow, 54 degrees from south point of the Moon's limb towards the east.

Magnitude of Eclipse = .667, (Moon's diameter = 1.)

II. A PARTIAL ECLIPSE OF THE SUN, March 26. Visible to North America east of Fredericton, N.B., to Greenland, the extreme western edge of Europe, and the North Atlantic Ocean.

III. A PARTIAL ECLIPSE OF THE SUN, August 30. Invisible to America. Visible to Russia.

IV. A TOTAL ECLIPSE OF THE MOON, September 3-4. Visible entire to North and South America, and, in part, to portions of Europe, Africa, Australia, the Atlantic and Pacific Oceans. Occurring as follows:—

STANDARD:—	Eastern.	Central.	Mountain.
	P. M. M.	P. M. M.	P. M. M.
Moon enters Penumbra.....	3 3 44 A.	3 8 44 A.	3 7 44 A.
Moon enters Shadow.....	3 11 0 A.	3 10 0 A.	3 9 0 A.
Total Eclipse begins.....	4 0 58 A.	3 11 0 A.	3 10 0 A.
Middle of Eclipse.....	4 0 57 M.	3 11 25 A.	3 10 37 A.
Total Eclipse ends.....	4 1 47 A.	4 0 47 M.	3 11 47 A.
Moon leaves Shadow.....	4 2 34 M.	4 1 54 M.	4 0 54 M.
Moon leaves Penumbra.....	4 4 3 M.	4 3 5 M.	4 2 0 M.

First contact of shadow, 54 degrees from north point of the Moon's limb towards the east.

Magnitude of Eclipse = .557 (Moon's diameter = 1.)

V. A PARTIAL ECLIPSE OF THE SUN, September 19. Invisible to America. Visible to eastern Australia, Tasmania, New Zealand, and neighboring South Pacific Ocean.

MORNING AND EVENING STARS.

MERCURY will be Evening Star about February 9, June 4, and October 1; and Morning Star about March 24, July 23, and November 10.

VENUS will be Evening Star until September 19; and then Morning Star the rest of the year.

JUPITER will be Evening Star until July 10; and then Morning Star the rest of the year.

The Calendars for the Latitude of Boston and Chicago

May be used for Central and Southern New England,
Central New York, Southern Michigan, Southern
Wisconsin, Northern Iowa, Northern Nebraska, South
Dakota, and Wyoming.

The Calendars for the Latitude of New York and Philadelphia

May be used for Southern New York, New Jersey, Penn-
sylvania, Northern Ohio, Northern Indiana, North-
ern Illinois, Southern Iowa, and Southern Nebraska.

The Calendars for the Latitude of Washington, Cincinnati, etc.

May be used for Delaware, Maryland, the Virginias,
Southern Ohio, Southern Indiana, Southern Illinois,
Kentucky, Missouri, Kansas, and Colorado.

THE SIZE OF THE SEAS.

	Miles long.
Mediterranean.....	2,000
Caribbean.....	1,800
Red.....	1,400
Black.....	932
Baltic.....	600

AREA OF OCEANS IN SQ. MILES.

Pacific.....	80,000,000
Atlantic.....	40,000,000
Indian.....	20,000,000
Southern.....	10,000,000
Arctic.....	5,000,000

SIZE OF THE GREAT LAKES.

	Miles long.	Miles wide.
Superior.....	380	120
Michigan.....	330	60
Ontario.....	170	40
Champlain.....	123	12
Erie.....	270	50
Huron.....	260	90
Winnipeg.....	240	40
Athabaska.....	200	20



MOON'S PHASES. (in Standard Time.)

FIRST QUARTER ..	4d. 2h. 53m. M.
FULL MOON	11d. 1h. 50m. M.
LAST QUARTER ..	17d. 5h. 55m. A.
NEW MOON	25d. 4h. 26m. A.

EAST'N DIVISION.

4d. 2h. 53m. M.
11d. 1h. 50m. M.
17d. 5h. 55m. A.
25d. 4h. 26m. A.

CENT. DIVISION.

4d. 2h. 53m. M.
11d. 1h. 50m. M.
17d. 5h. 55m. A.
25d. 4h. 26m. A.

LATITUDE OF BOSTON AND CHICAGO.

Day of W'k	Local Mean Time.	Sun R.&S.	Moon R.&S.
1 TU.	7 30	10 7	
2 WE.	7 39	11 8	
3 TH.	7 30	morn	
4 FR.	7 42	0 11	
5 SA.	7 30	1 17	
6 S.	7 43	2 28	
7 MO.	7 30	3 43	
8 TU.	7 45	4 59	
9 WE.	7 29	6 12	
10 TH.	7 47	7 18	
11 FR.	7 28	rises.	
12 SA.	7 49	6 39	
13 S.	7 28	8 1	
14 MO.	7 51	9 20	
15 TU.	7 27	10 35	
16 WE.	7 53	11 48	
17 TH.	7 26	morn	
18 FR.	7 56	0 59	
19 SA.	7 25	2 10	
20 S.	7 58	3 20	
21 MO.	7 24	4 26	
22 TU.	7 55	5 26	
23 WE.	7 22	6 17	
24 TH.	7 55	7 0	
25 FR.	7 21	sets.	
26 SA.	7 56	5 53	
27 S.	7 19	6 56	
28 MO.	7 8	7 58	
29 TU.	7 17	9 0	
30 WE.	7 12	10 3	
31 TH.	7 15	11 7	

LAT. OF N. YORK AND PHILA.

Day of W'k	Local Mean Time.	Sun R.&S.	Moon R.&S.
1 TU.	7 25	10 8	
2 WE.	7 44	11 8	
3 TH.	7 25	morn	
4 FR.	7 46	0 10	
5 SA.	7 25	1 15	
6 S.	7 48	2 24	
7 MO.	7 25	3 38	
8 TU.	7 50	4 53	
9 WE.	7 24	6 5	
10 TH.	7 52	7 11	
11 FR.	7 24	rises.	
12 SA.	7 54	6 43	
13 S.	7 23	8 4	
14 MO.	7 56	9 21	
15 TU.	7 22	10 35	
16 WE.	7 58	11 46	
17 TH.	7 21	morn	
18 FR.	7 51	0 56	
19 SA.	7 20	2 5	
20 S.	7 53	3 14	
21 MO.	7 19	4 19	
22 TU.	7 56	5 19	
23 WE.	7 18	6 10	
24 TH.	7 53	6 53	
25 FR.	7 17	sets.	
26 SA.	7 57	5 57	
27 S.	7 15	6 39	
28 MO.	7 12	8 0	
29 TU.	7 13	9 0	
30 WE.	7 15	10 2	
31 TH.	7 11	11 5	

LAT. OF WASH. CIN. & ST. LOUIS.

Day of W'k	Local Mean Time.	Sun R.&S.	Moon R.&S.
1 TU.	7 19	10 11	
2 WE.	7 50	11 9	
3 TH.	7 19	morn	
4 FR.	7 51	0 9	
5 SA.	7 19	1 13	
6 S.	7 53	2 20	
7 MO.	7 19	3 32	
8 TU.	7 55	4 46	
9 WE.	7 19	5 57	
10 TH.	7 57	7 3	
11 FR.	7 19	rises.	
12 SA.	7 59	6 49	
13 S.	7 18	8 7	
14 MO.	7 51	9 23	
15 TU.	7 17	10 35	
16 WE.	7 53	11 45	
17 TH.	7 17	morn	
18 FR.	7 55	0 53	
19 SA.	7 16	2 1	
20 S.	7 58	3 8	
21 MO.	7 15	4 12	
22 TU.	7 50	5 11	
23 WE.	7 14	6 2	
24 TH.	7 52	6 47	
25 FR.	7 12	sets.	
26 SA.	7 54	6 2	
27 S.	7 11	7 3	
28 MO.	7 17	8 2	
29 TU.	7 9	9 2	
30 WE.	7 19	10 2	
31 TH.	7 8	11 3	



MOON'S PHASES. (On Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FIRST QUARTER.....	2d. 7h. 16m. A.	2d. 6h. 16m. A.
FULL MOON.....	9d. oh. 23m. A.	9d. 1h. 23m. A.
LAST QUARTER.....	26d. 8h. 9m. M.	26d. 7h. 9m. M.
NEW MOON.....	24d. 11h. 43m. M.	24d. 10h. 43m. M.

LATITUDE OF BOSTON AND CHICAGO.	LAT. OF N. YORK AND PHILA.		LAT. OF WASH. AND ST. LOUIS.	
	Sun R.&S.	Moon R.&S.	Sun R.&S.	Moon R.&S.
1 Fr. 17 14 morn	17 10 morn	17 7 morn	17 7 morn	17 7 morn
2 Sa. 15 15 0 13	15 19 0 9	15 23 0 6	15 23 0 6	15 23 0 6
3 Su. 17 12 1 23	17 9 1 18	17 5 1 13	17 5 1 13	17 5 1 13
4 Mo. 15 18 2 36	15 21 2 30	15 25 2 24	15 25 2 24	15 25 2 24
5 Tu. 17 10 3 49	17 7 3 42	17 3 3 34	17 3 3 34	17 3 3 34
6 We. 15 20 4 57	15 24 4 49	15 27 4 42	15 27 4 42	15 27 4 42
7 Th. 17 8 5 56	17 4 5 49	17 1 5 42	17 1 5 42	17 1 5 42
8 Fr. 15 23 6 41	15 26 6 35	15 29 6 30	15 29 6 30	15 29 6 30
9 Sa. 17 6 rises.	17 2 rises.	17 59 rises.	17 59 rises.	17 59 rises.
10 Su. 15 26 6 51	15 29 6 53	15 32 6 56	15 32 6 56	15 32 6 56
11 Mo. 17 2 8 11	17 0 8 11	17 57 8 13	17 57 8 13	17 57 8 13
12 Tu. 15 28 9 27	15 31 9 26	15 34 9 25	15 34 9 25	15 34 9 25
13 We. 17 0 10 42	17 57 10 39	17 54 10 37	17 54 10 37	17 54 10 37
14 Th. 15 31 11 57	15 33 11 52	15 36 11 49	15 36 11 49	15 36 11 49
15 Fr. 17 58 morn	17 54 morn	17 52 morn	17 52 morn	17 52 morn
16 Sa. 15 33 1 9	15 36 1 4	15 38 0 58	15 38 0 58	15 38 0 58
17 Su. 16 55 2 17	16 52 2 11	16 49 2 4	16 49 2 4	16 49 2 4
18 Mo. 15 36 3 20	15 38 3 13	15 41 3 5	15 41 3 5	15 41 3 5
19 Tu. 17 52 4 15	17 49 4 7	17 47 4 0	17 47 4 0	17 47 4 0
20 We. 15 38 5 1	15 41 4 54	15 43 4 47	15 43 4 47	15 43 4 47
21 Th. 17 49 5 37	17 46 5 31	17 44 5 25	17 44 5 25	17 44 5 25
22 Fr. 15 41 6 5	15 43 6 0	15 45 5 55	15 45 5 55	15 45 5 55
23 Sa. 17 46 6 31	17 43 6 27	17 41 6 23	17 41 6 23	17 41 6 23
24 Su. 15 43 sets.	15 46 sets.	15 47 sets.	15 47 sets.	15 47 sets.
25 Mo. 17 43 6 53	17 40 6 54	17 39 6 56	17 39 6 56	17 39 6 56
26 Tu. 15 46 7 54	15 48 7 53	15 50 7 54	15 50 7 54	15 50 7 54
27 We. 17 39 8 58	17 36 8 56	17 35 8 55	17 35 8 55	17 35 8 55
28 Th. 15 48 10 4	15 50 10 1	15 52 9 59	15 52 9 59	15 52 9 59
29 .....	.....	.....	.....	.....
30 .....	.....	.....	.....	.....
31 .....	.....	.....	.....	.....



MOON'S PHASES. (On Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FIRST QUARTER.....	4d. 7h. 40m. M.	4d. 6h. 40m. M.
FULL MOON.....	10d. 10h. 38m. A.	10d. 9h. 38m. A.
LAST QUARTER.....	18d. oh. 31m. M.	17d. 21h. 31m. A.
NEW MOON.....	26d. 5h. 25m. M.	26d. 4h. 25m. M.

LATITUDE OF BOSTON AND CHICAGO.	LAT. OF N. YORK AND PHILA.		LAT. OF WASH. AND ST. LOUIS.	
	Sun R.&S.	Moon R.&S.	Sun R.&S.	Moon R.&S.
1 Fr. 16 36 11 13	16 35 11 9	16 33 11 4	16 33 11 4	16 33 11 4
2 Sa. 15 51 morn	15 52 morn	15 54 morn	15 54 morn	15 54 morn
3 Su. 16 33 0 24	16 31 0 18	16 30 0 12	16 30 0 12	16 30 0 12
4 Mo. 15 53 1 35	15 54 1 28	15 56 1 21	15 56 1 21	15 56 1 21
5 Tu. 16 30 2 43	16 28 2 35	16 27 2 28	16 27 2 28	16 27 2 28
6 We. 15 56 3 43	15 57 3 36	15 58 3 28	15 58 3 28	15 58 3 28
7 Th. 16 27 4 32	16 25 4 26	16 24 4 19	16 24 4 19	16 24 4 19
8 Fr. 15 58 5 11	15 59 5 6	16 0 5 1	16 0 5 1	16 0 5 1
9 Sa. 16 23 5 42	16 22 5 39	16 21 5 36	16 21 5 36	16 21 5 36
10 Su. 16 0 rises.	16 1 rises.	16 2 rises.	16 2 rises.	16 2 rises.
11 Mo. 16 19 6 59	16 19 6 59	16 18 6 59	16 18 6 59	16 18 6 59
12 Tu. 16 3 8 17	16 3 8 15	16 4 8 14	16 4 8 14	16 4 8 14
13 We. 16 16 9 33	16 15 9 29	16 15 9 27	16 15 9 27	16 15 9 27
14 Th. 16 5 10 48	16 5 10 43	16 6 10 38	16 6 10 38	16 6 10 38
15 Fr. 16 13 morn	16 12 11 55	16 12 11 49	16 12 11 49	16 12 11 49
16 Sa. 16 7 0 1	16 7 morn	16 8 morn	16 8 morn	16 8 morn
17 Su. 16 9 1 9	16 9 1 2	16 9 0 54	16 9 0 54	16 9 0 54
18 Mo. 16 10 2 8	16 10 2 0	16 10 1 53	16 10 1 53	16 10 1 53
19 Tu. 16 6 2 59	16 6 2 52	16 6 2 44	16 6 2 44	16 6 2 44
20 We. 16 12 3 38	16 12 3 32	16 12 3 25	16 12 3 25	16 12 3 25
21 Th. 16 2 4 9	16 2 4 4	16 2 3 58	16 2 3 58	16 2 3 58
22 Fr. 16 14 4 35	16 14 4 31	16 14 4 26	16 14 4 26	16 14 4 26
23 Sa. 15 59 4 57	15 59 4 54	15 59 4 52	15 59 4 52	15 59 4 52
24 Su. 16 16 5 17	16 16 5 15	16 16 5 14	16 16 5 14	16 16 5 14
25 Mo. 15 55 5 34	15 56 5 33	15 56 5 34	15 56 5 34	15 56 5 34
26 Tu. 16 19 sets.	16 18 sets.	16 18 sets.	16 18 sets.	16 18 sets.
27 We. 15 52 7 55	15 52 7 52	15 53 7 51	15 53 7 51	15 53 7 51
28 Th. 16 21 9 3	16 20 8 59	16 19 8 55	16 19 8 55	16 19 8 55
29 Fr. 15 48 10 14	15 49 10 9	15 50 10 3	15 50 10 3	15 50 10 3
30 Sa. 16 23 11 26	16 22 11 20	16 21 11 13	16 21 11 13	16 21 11 13
31 Su. 15 45 morn	15 46 morn	15 47 morn	15 47 morn	15 47 morn

D. of M.	LATITUDE OF STON AND CHICAGO.				LAT. OF M. TOR. AND PHILA.				LAT. OF WASH. C. AND ST. LOUIS				
	Day of Wk.	Local Mean		Moon R. & S.	Local Mean	Local Mean		Moon R. & S.	Local Mean	Local Mean		Moon R. & S.	
		R. & S.	R. & S.			R. & S.	R. & S.			R. & S.	R. & S.		
1	Mo.	75	43	0 35	75	44	0 28	75	46	0 30	75	48	0 30
2	Th.	26	1	1 37	26	25	1 30	26	24	1 28	26	23	1 26
3	We.	25	49	2 28	25	41	2 21	25	42	2 19	25	40	2 17
4	Th.	26	29	3 10	26	27	3 4	26	28	2 50	26	29	2 42
5	Fr.	25	26	3 43	25	28	3 39	25	29	3 35	25	30	3 31
6	Sa.	26	31	4 9	26	34	4 6	26	35	4 2	26	36	4 0
7	Mo.	25	33	4 32	25	35	4 31	25	36	4 31	25	38	4 31
8	Mo.	26	33	4 55	26	32	4 55	26	34	4 57	26	36	4 57
9	Tu.	25	30	rises.	25	31	rises.	25	33	rises.	25	33	rises.
10	We.	26	26	8 23	26	24	8 10	26	25	8 14	26	27	8 14
11	Th.	25	25	9 39	25	28	9 33	25	30	9 28	25	32	9 28
12	Fr.	26	28	10 51	26	30	10 44	26	31	10 37	26	34	10 37
13	Sa.	25	23	11 56	25	25	11 49	25	27	11 41	25	29	11 41
14	Mo.	26	40	morn	26	38	morn	26	39	morn	26	41	morn
15	Tu.	25	20	1 51	25	22	0 44	25	24	0 36	25	26	0 36
16	Th.	26	41	1 35	26	40	1 28	26	38	1 21	26	36	1 21
17	We.	25	36	2 10	25	39	2 4	25	41	1 58	25	43	1 58
18	Th.	26	44	2 38	26	42	2 33	26	40	2 29	26	42	2 29
19	Fr.	25	33	3 1	25	36	2 58	25	38	2 52	25	40	2 52
20	Sa.	26	47	3 21	26	44	3 19	26	42	3 15	26	44	3 15
21	Mo.	25	30	3 39	25	33	3 38	25	36	3 38	25	38	3 38
22	Mo.	26	49	3 57	26	40	3 57	26	44	3 58	26	48	3 58
23	Tu.	25	7	4 16	25	10	4 18	25	13	4 20	25	16	4 20
24	We.	26	51	4 37	26	48	4 40	26	50	4 44	26	54	4 44
25	Th.	25	4	sets.	25	7	sets.	25	10	sets.	25	13	sets.
26	Fr.	26	33	9 14	26	50	9 8	26	48	9 9	26	45	9 9
27	Sa.	25	1	10 26	25	4	10 19	25	8	10 12	25	11	10 12
28	Mo.	26	36	11 31	26	32	11 24	26	49	11 24	26	49	11 24
29	Tu.	26	59	morn	26	52	morn	26	53	morn	26	56	morn
30	Tu.	26	58	0 25	26	54	0 18	26	51	0 11	26	48	0 11

Date.	LATITUDE OF BOSTON AND CHICAGO.			LAT. OF N. YORK AND PHILA.			LAT. OF WASH. D. C. & ST. LOUIS.		
	Day of Wk.	Local Mean Time		Day of Wk.	Local Mean Time		Day of Wk.	Local Mean Time	
		Sun R.S.	Moon R.S.		Sun R.S.	Moon R.S.		Sun R.S.	Moon R.S.
1	Th.	74 50	1 8	74 59	1 2	75 3	0 5		
2	W.	77 0	1 43	76 57	1 38	76 53	1 1		
3	Fr.	74 53	2 12	74 57	2 9	76 53	1 1		
4	Sa.	77 2	2 36	76 59	2 34	76 55	2 3		
5	Mo.	74 50	2 58	74 54	2 58	74 58	2 3		
6	Mo.	77 4	3 20	77 1	3 21	76 57	3 2		
7	Tu.	74 48	3 43	74 52	3 46	74 50	3 4		
8	W.	77 7	4 10	77 3	4 14	76 59	4 4		
9	Th.	74 45	rises.	74 49	rises.	74 54	rises		
10	Fr.	77 9	9 39	77 5	9 32	77 1	9 3		
11	Sa.	74 43	10 39	74 47	10 32	74 52	10 3		
12	S.	77 11	11 28	77 7	11 21	77 2	11 1		
13	Mo.	74 41	morn.	74 45	morn.	74 50	11 1		
14	Tu.	77 13	0	77 9	0	77 4	morn.		
15	W.	74 39	0 38	74 43	0 38	74 48	0		
16	Th.	77 15	1 3	77 11	0 59	77 6	0		
17	Fr.	74 37	1 24	74 41	1 21	74 46	1		
18	Sa.	77 17	1 43	77 13	1 42	77 8	1		
19	S.	74 35	2 1	74 40	2 1	74 44	2		
20	Mo.	77 19	2 20	77 14	2 21	77 9	2		
21	Tu.	74 33	2 39	74 38	2 41	74 43	2		
22	W.	77 21	3 1	77 16	3 5	77 11	3		
23	Th.	74 31	3 29	74 35	3 34	74 41	3		
24	Fr.	77 23	sets.	77 18	sets.	77 13	sets		
25	Sa.	74 30	9 10	74 35	9 12	74 40	9		
26	S.	77 25	10 20	77 20	10 13	77 14	10		
27	Mo.	74 29	11 8	74 34	11 2	74 39	10		
28	Tu.	77 27	11 45	77 21	11 40	77 16	11		
29	W.	74 27	morn.	74 33	morn.	74 38	morn.		
30	Th.	77 28	0 15	77 23	0 11	77 18	0		
31	Fr.	74 26	0 40	74 32	0 38	74 37	0		



MOON'S PHASES. (On Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FULL MOON	7d. 6h. 0m. M.	7d. 5h. 0m. M.
LAST QUARTER.....	15d. 6h. 25m. M.	15d. 5h. 25m. M.
NEW MOON.....	22d. 4h. 31m. A.	22d. 3h. 31m. A.
FIRST QUARTER...	29d. 4h. 11m. M.	29d. 3h. 11m. M.

LATITUDE OF BOSTON AND CHICAGO.			LAT. OF N. YORK AND PHILA.			LAT. OF WASH. CIN. & ST. LOUIS.			
D. & M.	Day of Wk.	Local Mean Time. Sun R. & S. Moon R. & S.	D. & M.	Day of Wk.	Local Mean Time. Sun R. & S. Moon R. & S.	D. & M.	Day of Wk.	Local Mean Time. Sun R. & S. Moon R. & S.	
1	SA.	74 26 1 2	74 31 1 1	74 36 1 2	1	Mo.	74 25 0 15	74 32 0 18	74 38 0 23
2	S.	77 30 1 24	77 25 1 25	77 20 1 27	2	Tu.	77 40 0 42	77 35 0 47	77 29 0 52
3	Mo.	74 25 1 46	74 30 1 48	74 36 1 52	3	We.	74 27 1 14	74 33 1 20	74 39 1 27
4	Tu.	77 32 2 10	77 27 2 14	77 21 2 18	4	Th.	77 40 1 53	77 34 2 0	77 29 2 8
5	We.	74 24 2 39	74 29 2 44	74 35 2 50	5	Fr.	74 29 2 41	74 34 2 48	74 40 2 57
6	Th.	77 33 3 15	77 28 3 21	77 23 3 28	6	SA.	77 40 rises.	77 34 rises.	77 28 rises.
7	Fr.	74 23 rises.	74 29 rises.	74 34 rises.	7	S.	74 30 8 37	74 36 8 31	74 41 8 25
8	SA.	77 35 9 19	77 29 9 12	77 23 9 4	8	Mo.	77 39 9 5	77 33 9 0	77 27 8 55
9	S.	74 23 10 3	74 28 9 57	74 34 9 50	9	Tu.	74 31 9 29	74 37 9 25	74 42 9 23
10	Mo.	77 36 10 37	77 30 10 32	77 24 10 26	10	We.	77 38 9 50	77 32 9 48	77 27 9 46
11	Tu.	74 22 11 4	74 28 11 0	74 34 10 55	11	Th.	74 33 10 9	74 38 10 8	74 44 10 8
12	We.	77 37 11 27	77 31 11 24	77 25 11 22	12	Fr.	77 37 10 27	77 32 10 27	77 26 10 28
13	Th.	74 22 11 47	74 28 11 45	74 34 11 44	13	SA.	74 34 10 45	74 40 10 46	74 45 10 49
14	Fr.	77 38 morn	77 32 morn	77 26 morn	14	S.	77 36 11 5	77 31 11 8	77 25 11 11
15	SA.	74 22 0 5	74 28 0 4	74 34 0 5	15	Mo.	74 35 11 27	74 41 11 31	74 46 11 36
16	S.	77 38 0 22	77 33 0 23	77 27 0 24	16	Tu.	77 35 11 54	77 29 11 59	77 24 morn
17	Mo.	74 22 0 40	74 28 0 42	74 34 0 45	17	We.	74 37 morn	74 43 morn	74 48 0 5
18	Tu.	77 39 1 2	77 33 1 5	77 28 1 9	18	Th.	77 34 0 28	77 28 0 34	77 23 0 42
19	We.	74 23 1 27	74 28 1 32	74 34 1 37	19	Fr.	74 39 1 14	74 44 1 21	74 49 1 30
20	Th.	77 40 1 58	77 34 2 4	77 28 2 10	20	SA.	77 32 2 14	77 27 2 21	77 21 2 30
21	Fr.	74 23 2 38	74 29 2 45	74 34 2 52	21	S.	74 41 3 26	74 46 3 33	74 51 3 41
22	SA.	77 40 sets.	77 34 sets.	77 29 sets.	22	Mo.	77 30 sets.	77 25 sets.	77 20 sets.
23	S.	74 23 9 0	74 29 8 54	74 35 8 47	23	Tu.	74 43 8 44	74 48 8 41	74 53 8 39
24	Mo.	77 40 9 45	77 35 9 40	77 29 9 34	24	We.	77 29 9 9	77 23 9 7	77 19 9 7
25	Tu.	74 24 10 18	74 30 10 14	74 35 10 10	25	Th.	74 45 9 37	74 49 9 32	74 54 9 33
26	We.	77 40 10 44	77 35 10 42	77 29 10 40	26	Fr.	77 27 9 55	77 22 9 50	77 18 9 59
27	Th.	74 25 11 7	74 30 11 6	74 36 11 6	27	SA.	74 47 10 18	74 51 10 21	74 55 10 25
28	Fr.	77 40 11 29	77 35 11 29	77 29 11 31	28	S.	77 25 10 44	77 20 10 48	77 15 10 54
29	SA.	74 25 11 51	74 31 11 53	74 37 11 56	29	Mo.	74 49 11 15	74 53 11 20	74 58 11 27
30	S.	77 40 morn	77 35 morn	77 29 morn	30	Tu.	77 23 11 52	77 18 11 58	77 13 morn
31	We.	74 51 morn	74 55 morn	75 0 0 6	31	Th.	74 51 morn	74 55 morn	75 0 0 6



MOON'S PHASES. (On Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FULL MOON	6d. 6h. 29m. A.	6d. 5h. 29m. A.
LAST QUARTER.....	14d. 6h. 31m. A.	14d. 5h. 31m. A.
NEW MOON.....	22d. 6h. 32m. M.	21d. 5h. 32m. M.
FIRST QUARTER...	29d. 3h. 36m. A.	28d. 2h. 36m. A.

LATITUDE OF BOSTON AND CHICAGO.			LAT. OF N. YORK AND PHILA.			LAT. OF WASH. CIN. & ST. LOUIS.			
D. & M.	Day of Wk.	Local Mean Time. Sun R. & S. Moon R. & S.	D. & M.	Day of Wk.	Local Mean Time. Sun R. & S. Moon R. & S.	D. & M.	Day of Wk.	Local Mean Time. Sun R. & S. Moon R. & S.	
1	Mo.	74 25 0 15	74 32 0 18	74 38 0 23	1	Mo.	74 25 0 15	74 32 0 18	74 38 0 23
2	Tu.	77 40 0 42	77 35 0 47	77 29 0 52	2	Tu.	77 40 0 42	77 35 0 47	77 29 0 52
3	We.	74 27 1 14	74 33 1 20	74 39 1 27	3	We.	74 27 1 14	74 33 1 20	74 39 1 27
4	Th.	77 40 1 53	77 34 2 0	77 29 2 8	4	Th.	77 40 1 53	77 34 2 0	77 29 2 8
5	Fr.	74 29 2 41	74 34 2 48	74 40 2 57	5	Fr.	74 29 2 41	74 34 2 48	74 40 2 57
6	SA.	77 40 rises.	77 34 rises.	77 28 rises.	6	SA.	77 40 rises.	77 34 rises.	77 28 rises.
7	S.	74 30 8 37	74 36 8 31	74 41 8 25	7	S.	74 30 8 37	74 36 8 31	74 41 8 25
8	Mo.	77 39 9 5	77 33 9 0	77 27 8 55	8	Mo.	77 39 9 5	77 33 9 0	77 27 8 55
9	Tu.	74 31 9 29	74 37 9 25	74 42 9 23	9	Tu.	74 31 9 29	74 37 9 25	74 42 9 23
10	We.	77 38 9 50	77 32 9 48	77 27 9 46	10	We.	77 38 9 50	77 32 9 48	77 27 9 46
11	Th.	74 33 10 9	74 38 10 8	74 44 10 8	11	Th.	74 33 10 9	74 38 10 8	74 44 10 8
12	Fr.	77 37 10 27	77 32 10 27	77 26 10 28	12	Fr.	77 37 10 27	77 32 10 27	77 26 10 28
13	SA.	74 34 10 45	74 40 10 46	74 45 10 49	13	SA.	74 34 10 45	74 40 10 46	74 45 10 49
14	S.	77 36 11 5	77 31 11 8	77 25 11 11	14	S.	77 36 11 5	77 31 11 8	77 25 11 11
15	Mo.	74 35 11 27	74 41 11 31	74 46 11 36	15	Mo.	74 35 11 27	74 41 11 31	74 46 11 36
16	Tu.	77 35 11 54	77 29 11 59	77 24 morn	16	Tu.	77 35 11 54	77 29 11 59	77 24 morn
17	We.	74 37 morn	74 43 morn	74 48 0 5	17	We.	74 37 morn	74 43 morn	74 48 0 5
18	Th.	77 34 0 28	77 28 0 34	77 23 0 42	18	Th.	77 34 0 28	77 28 0 34	77 23 0 42
19	Fr.	74 39 1 14	74 44 1 21	74 49 1 30	19	Fr.	74 39 1 14	74 44 1 21	74 49 1 30
20	SA.	77 32 2 14	77 27 2 21	77 21 2 30	20	SA.	77 32 2 14	77 27 2 21	77 21 2 30
21	S.	74 41 3 26	74 46 3 33	74 51 3 41	21	S.	74 41 3 26	74 46 3 33	74 51 3 41
22	Mo.	77 30 sets.	77 25 sets.	77 20 sets.	22	Mo.	77 30 sets.	77 25 sets.	77 20 sets.
23	Tu.	74 43 8 44	74 48 8 41	74 53 8 39	23	Tu.	74 43 8 44	74 48 8 41	74 53 8 39
24	We.	77 29 9 9	77 23 9 7	77 19 9 7	24	We.	77 29 9 9	77 23 9 7	77 19 9 7
25	Th.	74 45 9 37	74 49 9 32	74 54 9 33	25	Th.	74 45 9 37	74 49 9 32	74 54 9 33
26	Fr.	77 27 9 55	77 22 9 50	77 18 9 59	26	Fr.	77 27 9 55	77 22 9 50	77 18 9 59
27	SA.	74 47 10 18	74 51 10 21	74 55 10 25	27	SA.	74 47 10 18	74 51 10 21	74 55 10 25
28	S.	77 25 10 44	77 20 10 48	77 15 10 54	28	S.	77 25 10 44	77 20 10 48	77 15 10 54
29	Mo.	74 49 11 15	74 53 11 20	74 58 11 27	29	Mo.	74 49 11 15	74 53 11 20	74 58 11 27
30	Tu.	77 23 11 52	77 18 11 58	77 13 morn	30	Tu.	77 23 11 52	77 18 11 58	77 13 morn
31	We.	74 51 morn	74 55 morn	75 0 0 6	31	We.	74 51 morn	74 55 morn	75 0 0 6



MOON'S PHASES. (In Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FULL MOON.....	2d. 5h. 51m. M.	2d. 7h. 51m. M.
LAST QUARTER.....	23d. 6h. 18m. A.	23d. 11h. 18m. M.
NEW MOON.....	26d. 7h. 35m. M.	26d. 8h. 35m. M.
FIRST QUARTER.....	27d. 6h. 43m. M.	26d. 11h. 43m. A.

LATITUDE OF BOSTON AND CHICAGO.			LAT. OF N. YORK AND PHILA.			LAT. OF WASH. CIN. & ST. LOUIS.		
Day of Wk.	Sun R.&S.	Moon R.&S.	Sun R.&S.	Moon R.&S.	Sun R.&S.	Sun R.&S.	Moon R.&S.	Sun R.&S.
1 Th.	74 52	0 38	74 56	0 45	75 0 0	75 0 0	75 0 0	75 0 0
2 Fr.	77 19	1 31	77 15	1 38	77 16	77 16	77 16	77 16
3 Sa.	74 54	2 31	74 58	2 38	75 2 26	75 2 26	75 2 26	75 2 26
4 S.	77 16	3 36	77 12	3 42	77 8	77 8	77 8	77 8
5 Mo.	74 56	rises.	75 0	rises.	75 4	75 4	75 4	75 4
6 Tu.	77 14	7 56	77 10	7 53	77 6	77 6	77 6	77 6
7 We.	74 58	8 15	75 2	8 13	75 5	75 5	75 5	75 5
8 Th.	77 11	8 33	77 8	8 33	77 4	77 4	77 4	77 4
9 Fr.	75 0	8 51	75 4	8 52	75 7	75 7	75 7	75 7
10 Sa.	77 8	9 9	77 5	9 11	77 1	77 1	77 1	77 1
11 S.	75 2	9 29	75 5	9 32	75 9	75 9	75 9	75 9
12 Mo.	77 6	9 53	77 2	9 58	76 59	76 59	76 59	76 59
13 Tu.	75 4	10 23	75 7	10 29	75 11	75 11	75 11	75 11
14 We.	77 3	11 2	77 0	11 9	76 56	76 56	76 56	76 56
15 Th.	75 6	11 54	75 9	morn	75 13	75 13	75 13	75 13
16 Fr.	77 0	morn	76 57	0 1	76 54	76 54	76 54	76 54
17 Sa.	75 8	1 0	75 11	1 7	75 15	75 15	75 15	75 15
18 S.	76 57	2 17	76 54	2 23	76 51	76 51	76 51	76 51
19 Mo.	75 11	3 39	75 13	3 44	75 16	75 16	75 16	75 16
20 Tu.	76 54	sets.	76 51	sets.	76 49	76 49	76 49	76 49
21 We.	75 13	7 34	75 15	7 33	75 18	75 18	75 18	75 18
22 Th.	76 51	7 56	76 48	7 57	76 45	76 45	76 45	76 45
23 Fr.	75 15	8 19	75 17	8 21	75 20	75 20	75 20	75 20
24 Sa.	76 48	8 45	76 45	8 49	76 43	76 43	76 43	76 43
25 S.	75 17	9 15	75 19	9 20	75 22	75 22	75 22	75 22
26 Mo.	76 44	9 51	76 42	9 57	76 40	76 40	76 40	76 40
27 Tu.	75 19	10 35	75 21	10 42	75 24	75 24	75 24	75 24
28 We.	76 41	11 26	76 39	11 33	76 37	76 37	76 37	76 37
29 Th.	75 21	morn	75 23	morn	75 25	75 25	75 25	75 25
30 Fr.	76 38	0 25	76 36	0 32	76 34	76 34	76 34	76 34
31 Sa.	75 23	1 29	75 25	1 35	75 27	75 27	75 27	75 27



MOON'S PHASES. (In Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FULL MOON.....	2d. 6h. 55m. M.	2d. 11h. 55m. A.
LAST QUARTER.....	23d. 11h. 51m. A.	23d. 10h. 51m. A.
NEW MOON.....	26d. 3h. 55m. A.	26d. 4h. 55m. A.
FIRST QUARTER.....	27d. 1h. 23m. A.	27d. 2h. 23m. A.

LATITUDE OF BOSTON AND CHICAGO.			LAT. OF N. YORK AND PHILA.			LAT. OF WASH. CIN. & ST. LOUIS.		
Day of Wk.	Sun R.&S.	Moon R.&S.	Sun R.&S.	Moon R.&S.	Sun R.&S.	Sun R.&S.	Moon R.&S.	Sun R.&S.
1 S.	75 24	2 34	75 26	2 39	75 28	75 28	75 28	75 28
2 Mo.	76 33	3 39	76 31	3 43	76 29	76 29	76 29	76 29
3 Tu.	75 26	4 41	75 28	4 44	75 30	75 30	75 30	75 30
4 We.	76 29	rises.	76 28	rises.	76 26	76 26	76 26	76 26
5 Th.	75 28	6 57	75 30	6 58	75 32	75 32	75 32	75 32
6 Fr.	76 26	7 14	76 25	7 16	76 23	76 23	76 23	76 23
7 Sa.	75 30	7 34	75 32	7 37	75 34	75 34	75 34	75 34
8 S.	76 23	7 58	76 21	8 2	76 20	76 20	76 20	76 20
9 Mo.	75 33	8 25	75 34	8 30	75 35	75 35	75 35	75 35
10 Tu.	76 19	8 59	76 18	9 5	76 17	76 17	76 17	76 17
11 We.	75 35	9 44	75 36	9 51	75 37	75 37	75 37	75 37
12 Th.	76 16	10 42	76 15	10 49	76 14	76 14	76 14	76 14
13 Fr.	75 37	11 51	75 38	11 59	75 39	75 39	75 39	75 39
14 Sa.	76 12	morn	76 11	morn	76 11	76 11	76 11	76 11
15 S.	75 39	1 10	75 40	1 15	75 41	75 41	75 41	75 41
16 Mo.	76 9	2 31	76 8	2 35	76 7	76 7	76 7	76 7
17 Tu.	75 41	3 54	75 42	3 56	75 43	75 43	75 43	75 43
18 We.	76 5	5 15	76 5	5 16	76 4	76 4	76 4	76 4
19 Th.	75 43	sets.	75 44	sets.	75 44	75 44	75 44	75 44
20 Fr.	76 2	6 44	76 1	6 47	76 1	76 1	76 1	76 1
21 Sa.	75 45	7 13	75 46	7 18	75 46	75 46	75 46	75 46
22 S.	75 58	7 47	75 58	7 53	75 58	75 58	75 58	75 58
23 Mo.	75 48	8 28	75 48	8 35	75 48	75 48	75 48	75 48
24 Tu.	75 54	9 18	75 55	9 25	75 54	75 54	75 54	75 54
25 We.	75 50	10 16	75 50	10 23	75 50	75 50	75 50	75 50
26 Th.	75 51	11 19	75 51	11 25	75 51	75 51	75 51	75 51
27 Fr.	75 52	morn	75 52	morn	75 52	75 52	75 52	75 52
28 Sa.	75 47	0 24	75 48	0 29	75 48	75 48	75 48	75 48
29 S.	75 54	1 29	75 54	1 33	75 53	75 53	75 53	75 53
30 Mo.	75 44	2 32	75 44	2 35	75 45	75 45	75 45	75 45



MOON'S PHASES. (In Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FULL MOON	2d. 5h. 47m. A.	2d. 4h. 47m. A.
LAST QUARTER.....	1st. 9h. 14m. M.	1st. 8h. 14m. M.
NEW MOON	18d. 1h. 20m. M.	18d. 6h. 10m. M.
FIRST QUARTER	25d. 6h. 4m. M.	25d. 5h. 4m. M.

LATITUDE OF BOSTON AND CHICAGO.				LAT. OF N. YORK AND PHILA.				LAT. OF WASH. CIN. & ST. LOUIS.			
D. of M.	Day of Wk.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.
1	Tu.	75 56	3 35	75 56	3 37	75 55	3 40				
2	We.	75 40	4 37	75 41	4 38	75 42	4 39				
3	Th.	75 58	5 38	75 58	5 37	75 57	5 37				
4	Fr.	75 37	rises.	75 38	rises.	75 39	rises.				
5	Sa.	76 1	6 2	76 0	6 6	75 59	6 11				
6	Su.	75 34	6 29	75 35	6 34	75 36	6 40				
7	Mo.	76 3	7 2	76 2	7 8	76 1	7 15				
8	Tu.	75 30	7 43	75 31	7 50	75 33	7 58				
9	We.	76 5	8 35	76 4	8 42	76 3	8 51				
10	Th.	75 27	9 38	75 28	9 45	75 30	9 53				
11	Fr.	76 7	10 51	76 6	10 57	76 5	11 4				
12	Sa.	75 24	morn.	75 25	morn.	75 27	morn.				
13	Su.	76 10	0 9	76 8	0 14	76 7	0 19				
14	Mo.	75 20	1 28	75 22	1 31	75 24	1 35				
15	Tu.	76 12	2 47	76 11	2 49	76 9	2 51				
16	We.	75 17	4 6	75 19	4 6	75 21	4 7				
17	Th.	76 15	5 24	76 13	5 22	76 11	5 22				
18	Fr.	75 14	sets.	75 16	sets.	75 18	sets.				
19	Sa.	76 17	5 42	76 15	5 47	76 13	5 53				
20	Su.	75 11	6 21	75 13	6 27	75 15	6 35				
21	Mo.	76 20	7 8	76 17	7 15	76 15	7 24				
22	Tu.	75 8	8 3	75 10	8 10	75 12	8 19				
23	We.	76 22	9 6	76 19	9 13	76 17	9 21				
24	Th.	75 5	10 12	75 7	10 18	75 10	10 25				
25	Fr.	76 24	11 12	76 22	11 23	76 19	11 28				
26	Sa.	75 2	morn.	75 5	morn.	75 7	morn.				
27	Su.	76 26	0 22	76 24	0 25	76 21	0 30				
28	Mo.	74 50	1 25	75 2	1 27	75 5	1 30				
29	Tu.	76 29	2 27	76 26	2 28	76 24	2 30				
30	We.	74 57	3 28	74 59	3 28	75 2	3 28				
31	Th.	76 32	4 30	76 28	4 28	76 26	4 28				



MOON'S PHASES. (In Standard Time.)	EAST'N DIVISION.	CENT. DIVISION.
FULL MOON	2d. 10h. 18m. M.	2d. 9h. 18m. M.
LAST QUARTER.....	9d. 6h. 6m. A.	9d. 5h. 6m. A.
NEW MOON	16d. 6h. 11m. A.	16d. 11h. 11m. M.
FIRST QUARTER	24d. 2h. 19m. M.	24d. 1h. 19m. M.

LATITUDE OF BOSTON AND CHICAGO.				LAT. OF N. YORK AND PHILA.				LAT. OF WASH. CIN. & ST. LOUIS.			
D. of M.	Day of Wk.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.	Local Mean Time. Sun Moon R.&S. R.&S.
1	Fr.	76 33	5 34	76 36	5 31	76 27	5 29				
2	Sa.	74 53	6 41	74 56	6 37	74 59	6 33				
3	Su.	75 35	rises.	76 32	rises.	76 29	rises.				
4	Mo.	74 50	5 41	74 53	5 48	74 57	5 46				
5	Tu.	76 38	6 31	76 35	6 38	76 31	6 47				
6	We.	74 48	7 32	74 51	7 39	74 55	7 48				
7	Th.	76 41	8 42	76 37	8 48	76 33	8 56				
8	Fr.	74 45	9 57	74 49	10 2	74 53	10 8				
9	Sa.	76 43	11 13	76 39	11 17	76 36	11 21				
10	Su.	74 43	morn.	74 47	morn.	74 51	morn.				
11	Mo.	76 45	0 29	76 42	0 31	76 38	0 34				
12	Tu.	74 41	1 45	74 45	1 46	74 49	1 47				
13	We.	76 48	3 2	76 44	3 1	76 40	3 1				
14	Th.	74 39	4 19	74 43	4 17	74 47	4 15				
15	Fr.	76 50	5 37	76 46	5 33	76 42	5 29				
16	Sa.	74 38	6 56	74 42	6 51	74 46	6 45				
17	Su.	76 53	sets.	76 49	sets.	76 45	sets.				
18	Mo.	74 36	5 49	74 40	5 56	74 44	6 5				
19	Tu.	76 55	6 50	76 51	6 57	76 47	7 5				
20	We.	74 34	7 56	74 39	8 2	74 43	8 9				
21	Th.	76 58	9 4	76 54	9 9	76 49	9 15				
22	Fr.	74 38	10 14	74 42	10 14	74 46	10 19				
23	Sa.	77 0	11 14	76 56	11 17	76 51	11 20				
24	Su.	74 32	morn.	74 37	morn.	74 41	morn.				
25	Mo.	77 3	0 15	76 58	0 16	76 53	0 19				
26	Tu.	74 31	1 16	74 36	1 16	74 40	1 17				
27	We.	77 5	2 17	77 0	2 16	76 55	2 16				
28	Th.	74 30	3 20	74 35	3 18	74 39	3 16				
29	Fr.	77 7	4 25	77 2	4 21	76 57	4 19				
30	Sa.	74 29	5 33	74 34	5 28	74 39	5 23				



MOON'S PHASES. (In Standard Time.)	EAST'N DIVISION.		CENT. DIVISION.	
FULL MOON	2d.	1h. 38m. M.	2d.	ch. 38m. M.
LAST QUARTER...	9d.	2h. 40m. M.	9d.	1h. 50m. M.
NEW MOON	16d.	1h. 30m. M.	16d.	ch. 30m. M.
FIRST QUARTER ..	23d.	ch. 21m. M.	23d.	16h. 21m. A.
FULL MOON	31d.	3h. 21m. A.	31d.	2h. 31m. A.

LATITUDE OF BOSTON AND CHICAGO.			LAT. OF N. YORK AND PHILA.			LAT. OF WASH. CITY & ST. LOUIS.		
D. of M.	Local Mean Time.		Local Mean Time.		Sun R.&S.	Local Mean Time.		Sun R.&S.
	Day of Wk.	Sun R.&S.	Moon R.&S.	Sun R.&S.	Moon R.&S.	Sun R.&S.	Moon R.&S.	Sun R.&S.

1	S	17 9	6 44	17 4	6 38	16 58	6 32	
2	Mo.	14 28	rises.	14 33	rises.	14 38	rises.	
3	Tu.	17 11	5 23	17 6	5 30	17 0	5 39	
4	We.	14 28	6 32	14 33	6 38	14 38	6 46	
5	Th.	17 14	7 47	17 8	7 52	17 2	7 59	
6	Fr.	14 28	9 5	14 33	9 9	14 38	9 14	
7	Sa.	17 16	10 21	17 10	10 24	17 4	10 27	
8	S	14 28	11 36	14 33	11 37	14 38	11 39	
9	Mo.	17 17	morn	17 12	morn	17 6	morn	
10	Tu.	14 28	0 50	14 33	0 50	14 38	0 50	
11	We.	17 19	2 4	17 14	2 2	17 8	2 1	
12	Th.	14 28	3 10	14 33	3 16	14 39	3 13	
13	Fr.	17 21	4 36	17 15	4 31	17 9	4 26	
14	Sa.	14 28	5 52	14 34	5 46	14 39	5 40	
15	S	17 22	7 3	17 17	6 56	17 11	6 49	
16	Mo.	14 29	sets.	14 34	sets.	14 40	sets.	
17	Tu.	17 24	5 39	17 18	5 45	17 12	5 53	
18	We.	14 29	6 46	14 35	6 52	14 41	6 58	
19	Th.	17 25	7 53	17 20	7 57	17 14	8 3	
20	Fr.	14 30	8 59	14 36	9 2	14 41	9 6	
21	Sa.	17 26	10 2	17 21	10 4	17 15	10 7	
22	S	14 31	11 3	14 37	11 4	14 42	11 5	
23	Mo.	17 27	morn	17 22	morn	17 16	morn	
24	Tu.	14 32	0 3	14 38	0 2	14 43	0 3	
25	We.	17 28	1 5	17 22	1 3	17 17	1 2	
26	Th.	14 34	2 9	14 39	2 6	14 45	2 4	
27	Fr.	17 29	3 16	17 23	3 12	17 18	3 7	
28	Sa.	14 35	4 24	14 40	4 19	14 46	4 13	
29	S	17 29	5 33	17 24	5 27	17 18	5 20	
30	Mo.	14 36	6 40	14 42	6 33	14 47	6 25	
31	Tu.	17 30	7 39	17 24	7 32	17 19	7 25	

Ther.

TUESDAY, JAN. 1, 1895

Wea.

Ther.

WEDNESDAY 2

Wea.

Ther.

THURSDAY 3

Wea.

Ther.

FRIDAY, JAN. 4, 1895

Wea.

Ther.

SATURDAY 5

Wea.

Ther.

SUNDAY 6

Wea.

Ther.

MONDAY, JAN. 7, 1895

Wea.

Ther.

TUESDAY 8

Wea.

Ther.

WEDNESDAY 9

Wea.

Ther. THURSDAY, JAN. 10, 1895 Wea.

Ther. SUNDAY, JAN. 13, 1895 Wea.

Ther. FRIDAY 11 Wea.

Ther. MONDAY 14 Wea.

Ther. SATURDAY 12 Wea.

Ther. TUESDAY 15 Wea.

Ther.

WEDNESDAY, JAN. 16, 1895

Wea.

Ther.

SATURDAY, JAN. 19, 1895

Wea.

Ther.

THURSDAY 17

Wea.

Ther.

SUNDAY 20

Wea.

Ther.

FRIDAY 18

Wea.

Ther.

MONDAY 21

Wea.

Ther.

TUESDAY, JAN. 22, 1895

Wea.

Ther.

FRIDAY, JAN. 25, 1895

Wea.

Ther.

WEDNESDAY 23

Wea.

Ther.

SATURDAY 26

Wea.

Ther.

THURSDAY 24

Wea.

Ther.

SUNDAY 27

Wea.

Ther.

MONDAY, JAN. 28, 1895

Wea.

Ther.

THURSDAY, JAN. 31, 1895

Wea.

Ther.

TUESDAY 29

Wea.

Ther.

FRIDAY, FEB. 1

Wea.

Ther.

WEDNESDAY 30

Wea.

Ther.

SATURDAY 2

Wea.

Ther.

SUNDAY, FEB. 3, 1895

Wea.

Ther.

WEDNESDAY, FEB. 6, 1895

Wea.

Ther.

MONDAY 4

Wea.

Ther.

THURSDAY 7

Wea.

Ther.

TUESDAY 5

Wea.

Ther.

FRIDAY 8

Wea.

Ther.

SATURDAY, FEB. 9, 1895

Wes.

Ther.

TUESDAY, FEB. 12, 1895

Wes.

Ther.

SUNDAY 10

Wes.

Ther.

WEDNESDAY 13

Wes.

Ther.

MONDAY 11

Wes.

Ther.

THURSDAY 14

Wes.

Ther.

FRIDAY, FEB. 15, 1895

Wea.

Ther.

MONDAY, FEB. 18, 1895

Wea.

Ther.

SATURDAY 16

Wea.

Ther.

TUESDAY 19

Wea.

Ther.

SUNDAY 17

Wea.

Ther.

WEDNESDAY 20

Wea.

Ther.

THURSDAY, FEB. 21, 1895

Wea.

Ther.

SUNDAY, FEB. 24, 1895

Wea.

Ther.

FRIDAY 22

Wea.

Ther.

MONDAY 25

Wea.

Ther.

SATURDAY 23

Wea.

Ther.

TUESDAY 26

Wea.

Ther. WEDNESDAY, FEB. 27, 1895 Wea.

Ther. SATURDAY, MAR. 2, 1895 Wea.

Ther. THURSDAY 28 Wea.

Ther. SUNDAY 3 Wea.

Ther. FRIDAY, MAR. 1 Wea.

Ther. MONDAY 4 Wea.

Ther.

TUESDAY, MAR. 5, 1895

Wea.

Ther.

FRIDAY, MAR. 8, 1895

Wea.

Ther.

WEDNESDAY 6

Wea.

Ther.

SATURDAY 9

Wea.

Ther.

THURSDAY 7

Wea.

Ther.

SUNDAY 10

Wea.

Ther. MONDAY, MAR. 11, 1895 Wea.

I go to Burlington
and dine with Prof.
Jones. Call at Fred
Horsford's on the way
and look over orchards.

Ther. TUESDAY 12 Wea.

I put up grasses for Prof.
Scribner to name and
pres for Mr. Sampson
during this and the
following days.

Ther. WEDNESDAY 13 Wea.

Ther. THURSDAY, MAR. 14, 1895 Wea.

Pres. Krainerd came last
evening for his annual
visit.

Ther. FRIDAY 15 Wea.

I arrange plants and make
up a package of Umbelliferae
to send to Dr. Rose.

Ther. SATURDAY 16 Wea.

At 9:05 A. M. I take the
south bound train to make
a visit to Geo. H. Welton
in South Deerfield Mass.
Pass Bellows Falls at 1:25 P. M.
wait at Greenfield an hour
for way train and reach So.
Deerfield Station at 4:27 P. M.
begin home half an hour later

Ther.

SUNDAY, MAR. 17, 1895

Wea.

Ther.

WEDNESDAY, MAR. 20, 1895

Wea.

Putting up plants for Mr.
Childson still.

Ther.

MONDAY 18

Wea.

From South Deerfield
to Charlotte.

Ther.

THURSDAY 21

Wea.

We finish making up
the collection for Mr.
Childson - 1348 sp. P.C. May

Ther.

TUESDAY 19

Wea.

We begin making up
a large lot of plants for
Chas. S. Childson, Oswego,
N. Y.

Ther.

FRIDAY 22

Wea.

I make up a package
of grasses for Prof. F. L.
Scribner, who has lost
his by fire -

Ther. SATURDAY, MAR. 23, 1895 Wea.

I begin tickitting miscellaneous plants of 1894 for sending to Harvard Herbarium.

Ther. SUNDAY 24 Wea.

I attend the Baptist Church and call at Myron Williams.

Ther. MONDAY 25 Wea.

Still tickitting plants.

Ther. TUESDAY, MAR. 26, 1895 Wea.

Still at work as yesterday.

Ther. WEDNESDAY 27 Wea.

Occupied during the forenoon the same as yesterday.

In the afternoon I assort and arrange the letters and papers left by precious mother, and I have a little time of it.

Ther. THURSDAY 28 Wea.

I mount a lot of plants sent me by James M. Macoun, Ottawa, Canada.

Ther.

FRIDAY, MAR. 29, 1895

Wea.

I begin mounting a collection of plants received from C. W. Piper, Pullman, Washington.

Ther.

SATURDAY 30

Wea.

In the morning I walk out west to visit Paul Hartford.

In the afternoon I finish mounting the Washington plants.

Ther.

SUNDAY 31

Wea.

John and I attend Church.

Ther.

MONDAY, APRIL 1, 1895

Wea.

Selecting and tickling miscellaneous plants of 1890, 1891, and 1893, including many n. sp., for my herbarium.

Ther.

TUESDAY 2

Wea.

Continuing the work of yesterday and mounting specimens.

Ther.

WEDNESDAY 3

Wea.

I finish mounting the specimens mentioned above.

Ther. THURSDAY, APRIL 4, 1895 Wea.

Selecting and ticketting
Pl. Mex. of miscellaneous
collections of 1891, 1892,
and 1893 for the Institute
and Museum in Mexico
City.

Ther. FRIDAY 5 Wea.

I go to Burlington with
my brother and buy my
horse.

Ther. SATURDAY 6 Wea.

I finish ticketting
miscellaneous plants for
Mexican herbarium.

Ther. SUNDAY, APRIL 7, 1895 Wea.

I mount for myself a small
lot of Mexican plants.

Ther. MONDAY 8 Wea.

I mount miscellaneous
Mexican plants for the Mex-
ican National Museum -
59 specim. - and begin upon
a larger lot for the Mexican
Institute.

Ther. TUESDAY 9 Wea.

Walking to the train I go to
South Berfield to arrange
business with Geo. Lockman.

Ther. WEDNESDAY, APRIL 10, 1895 Wea.

George and I go up to
Shildburn Falls and buy two
hens just brought from
the West.

Ther. THURSDAY 11 Wea.

In Greenfield George
and I buy a pair of
harnesses, then I come
home.

Ther. FRIDAY 12 Wea.

I return to my mount-
ing of miscellaneous
plants for the Mus. Institute.

Ther. SATURDAY, APRIL 13, 1895 Wea.

I finish that mounting;
then clean out the cellar.

Ther. SUNDAY 14 Wea.

Ther. MONDAY 15 Wea.

John and I start for
Kurlington afoot. Arrived
at the station we learn of
a washout which will pre-
vent a train coming in
many hours; so we dine
with Fred Horsford and
walk on to spend the
night at Cyrus Lewis.

Ther. TUESDAY, APRIL 16, 1895 Wea.

We go on to Burlington in the morning, transact our business and take train back at 3.10 P.M. After reaching home, I go over to my Brother's to finish paying for my hour -

Ther. WEDNESDAY 17 Wea.

I begin to lay out sets of 1894 to mount for my own herbarium and for those of the Mexican Museum and Institute -

Ther. THURSDAY 18 Wea.

Lists of plant names having come in last coming from Mr. Greenman and from Prof. Scribner, I first prepare tickets for sending to Mr. Patterson to be printed - then ticked some of the grasses -

Ther. FRIDAY, APRIL 19, 1895 Wea.

Mount the grasses for the Thun herbaria -

Ther. SATURDAY 20 Wea.

I return to laying out the Thun sets -

Ther. SUNDAY 21 Wea.

Ther. MONDAY, APRIL 22, 1895 Wea.

I work on the laying
out of the them sets.

Ther. THURSDAY, APRIL 25, 1895 Wea.

I finish making up
the three sets for mount-
ing.

Ther. TUESDAY 23 Wea.

I worked on sets
during the forenoon and
in the afternoon, having
heard of George's welcome
arrival at the station
with horses, etc., in a box
car. I walked out there
to help him unload. He
drove the team home by
9.00 P.M.

Ther. WEDNESDAY 24 Wea.

Worked on sets during
the afternoon. The morn-
ing was given to farm
business and to sleep
for my hurried walk
to the depot and work-
ing till a late hour of
the night increased
my lameness and fatigued
me.

Ther. FRIDAY 26 Wea.

Carlise moves.

Ther. SATURDAY 27 Wea.

George and I go to Mountain
and get a load of cedar posts.

Ther. SUNDAY, APRIL 28, 1895 Wea.

Ther. WEDNESDAY, MAY 1, 1895 Wea.

Mounted a hundred
sheets of my set.

Ther. MONDAY 29 Wea.

Ther. THURSDAY 2 Wea.

I write to Aunt Martha,
and do some mounting.

Accomplished the
same work as yester-
day in kind and
amount.

Ther. TUESDAY 30 Wea.

Ther. FRIDAY 3 Wea.

I begin mounting my set of
Pl. Mex., 1894.

Did the same thing as
yesterday.

George goes to the station and
brings home his wife.

Ther. SATURDAY, MAY 4, 1895 Wea.

And again the same. So
I finish mounting my
set of 516 species.

Ther. SUNDAY 5 Wea.

Take dinner at Geo. W.
Prindle's.

Ther. MONDAY 6 Wea.

I begin mounting another
set of Pl. Mex., 1894, for
El Instituto Medico Nac-
ional, Mexico City.

Ther. TUESDAY, MAY 7, 1895 Wea.

I mount 150 skulls today.

Ther. WEDNESDAY 8 Wea.

I mount nearly 200
skulls.

Ther. THURSDAY 9 Wea.

I finish mounting
the set for the Institute.

Ther.

FRIDAY, MAY 10, 1895

Wea.

I mount 160 specimens
of the set of Pl. Mex.,
1894 designed for the
Mexican National Museum.

Ther.

SATURDAY 11

Wea.

Mount another 150
specimens -

Ther.

SUNDAY 12

Wea.

A great rain comes from
the north to wet the dry
earth.

Ther.

MONDAY, MAY 13, 1895

Wea.

Again mounting 150 sheets
I finish (except some tickets)
my set for the Mexican
National Museum.

The weather is so cold I
keep up a fire to warm my
room -

Ther.

TUESDAY 14

Wea.

There is a white frost this
morning so severe as to
kill the young shoots of
many species of plants, -
white and black ashes,
butternut and walnuts,
bur oak, red clover, ferns
equisetums, etc.

Ther.

WEDNESDAY 15

Wea.

John and I set out to
visit Harvard College and
arrive at the house of Dr.
Benj. C. Robinson in Cambridge
about 5.00 P.M.

Ther. THURSDAY, MAY 16, 1895 Wea.

We spend this day in the Harvard Herbarium and in the Museum -

Ther. SUNDAY, MAY 19, 1895 Wea.

In the afternoon I walk to Farrisburgh to visit my old friend Lindley M. Macomber -

Ther. FRIDAY 17 Wea.

We spend the morning with Dr. Goodale in the Museum, in the afternoon meet Clara E. Cummings of Wellsley at Mr. A. W. Seymour's office, then with Dr. Robinson go out to Readville to dine with Dr. Geo. Kennedy -

Ther. SATURDAY 18 Wea.

Leaving Dr. Robinson's in the train we go into Boston and there fail to meet Mr. Savenport, so take train for home at 9.00 A. M.

Ther. MONDAY 20 Wea.

Call at Peter Gattin's and call on Polly Chase my good old nurse and reach home by noon -

Begin masting farm gates, etc., which work takes up all this week, my leg getting inflamed and painful.

Ther. TUESDAY 21 Wea.

Ther. WEDNESDAY, MAY 22, 1895 Wea.

Ther. SATURDAY, MAY 25, 1895 Wea.

Ther. THURSDAY 23 Wea.

Ther. SUNDAY 26 Wea.

Ther. FRIDAY 24 Wea.

Ther. MONDAY 27 Wea.

I put up a collection of
firms for a German
customer. And again
making up a collection
of my Pl. Mex., 1885-1889,
for another German -

Ther. TUESDAY, MAY 23, 1895. Wea.

I finish the collection
for the German -

Ther. WEDNESDAY 29 Wea.

I mount a lot of my
miscellaneous species of
1894.

Ther. THURSDAY 30 Wea.

Aunt Emily Prindle and
I go to Middleton to visit
our relations: as we have
to be over some four hours
in Rutland we call at
Wm. Knowbridge's and
John Norton's.

Thermometer as high as 95°.

Ther. FRIDAY, MAY 31, 1895 Wea.

Ther. SATURDAY, JUNE 1 Wea.

Aunt Emily and I
return to Charlotte. In
West Rutland I spend
several hours with John
H. Mead.

Ther. SUNDAY 2 Wea.

Ther.

MONDAY, JUNE 3, 1895

Wea.

I mount some more miscellaneous plants of 1884 together with some species from Newfoundland given me by Dr. Robinson.

Ther.

TUESDAY 4

Wea.

I put into herbarium the sheets mounted yesterday, and write letters.

Ther.

WEDNESDAY 5

Wea.

I receive a visit from Lindley M. Macomber.

Ther.

THURSDAY, JUNE 6, 1895

Wea.

I begin writing an account of my tenth Mexican journey.

Ther.

FRIDAY 7

Wea.

Finished writing Notes of Mexican Travel - X, Taxaca, and copied them.

Ther.

SATURDAY 8

Wea.

I visited Henry W. Prindle.

Ther.

SUNDAY, JUNE 9, 1895

Wea.

In the afternoon John and I visit George Clark's.

Ther.

MONDAY 10

Wea.

I go to the west park of the town with Mr. Eggleston to show him *Rotrychium simplex* Hitch., and spend the afternoon with Fred Horsford.

Ther.

TUESDAY 11

Wea.

I help John start mowing.

Ther.

WEDNESDAY, JUNE 12, 1895

Wea.

In the afternoon I go to the depot to meet Aunt Martha Lowry

Ther.

THURSDAY 13

Wea.

Ther.

FRIDAY 14

Wea.

I go to Hinesburgh for shoes, etc.

Ther. SATURDAY, JUNE 15, 1895 Wea.

Ther. TUESDAY, JUNE 18, 1895 Wea.

Ther. SUNDAY 16 Wea.

Ther. WEDNESDAY 19 Wea.

Ther. MONDAY 17 Wea.

Ther. THURSDAY 20 Wea.

Mowing.

Ther.

FRIDAY, JUNE 21, 1895

Wea.

Ther.

MONDAY, JUNE 24, 1895

Wea.

Ther.

SATURDAY 22

Wea.

Ther.

TUESDAY 25

Wea.

Ther.

SUNDAY 23

Wea.

Ther.

WEDNESDAY 26

Wea.

Ther.

THURSDAY, JUNE 27, 1895

Wea.

Making out the list
for my sets of Pl. Mex
1894.

Ther.

FRIDAY 28

Wea.

Ther.

SATURDAY 29

Wea.

Ther.

SUNDAY, JUNE 30, 1895

Wea.

Ther.

MONDAY, JULY 1

Wea.

Ther.

TUESDAY 2

Wea.

John and I go to Burlington
and buy a bicycle.

Ther.

WEDNESDAY, JULY 3, 1895

Wea.

Ther.

SATURDAY, JULY 6, 1895

Wea.

Went to Rutland with
Aunt Martha and saw
her aboard the stage for Mid-
dletown Spring -

Ther.

THURSDAY 4

Wea.

Ther.

SUNDAY 7

Wea.

Ther.

FRIDAY 5

Wea.

Ther.

MONDAY 8

Wea.

Ther.

TUESDAY, JULY 9, 1895

Wea.

Ther.

FRIDAY, JULY 12, 1895

Wea.

Ther.

WEDNESDAY 10

Wea.

Ther.

SATURDAY 13

Wea.

Ther.

THURSDAY 11

Wea.

Ther.

SUNDAY 14

Wea.

John and I drive to Kew-
lington to get his bicycle re-
paired - and to buy clothes.

Ther.

MONDAY, JULY 15, 1895

Wea.

John and I drive to N.
Ferrisburgh to draw home
a herbarium case.

Ther.

TUESDAY 16

Wea.

Ther.

THURSDAY, JULY 18, 1895

Wea.

I visit my old friends, the
Rands, in New Haven -

Ther.

FRIDAY 19

Wea.

Return from New Haven, and
begin making my distribution
by laying out a half dozen
plants -

Ther.

WEDNESDAY 17

Wea.

Ther.

SATURDAY 20

Wea.

John and I lay out 55 plants.

Ther.

SUNDAY, JULY 21, 1895

Wea.

Ther.

WEDNESDAY, JULY 24, 1895

Wea.

We then lay out 56 plants.

Ther.

MONDAY 22

Wea.

Ther.

THURSDAY 25

Wea.

We then lay out 66 plants.

We lay out a dozen plants
and pack and deliver to
cars a box containing
mounted plants for Mexico
City; Roy Taggart helping
us.

Ther.

TUESDAY 23

Wea.

Ther.

FRIDAY 26

Wea.

We then lay out 64 plants,
and tie up fascicle C.

We go to Burlington to see
Buffete Bill's Show

Ther.

SATURDAY, JULY 27, 1895

Wea.

We then lay out 52
plants besides tying up
fascicles B-

Ther.

SUNDAY 28

Wea.

Ther.

MONDAY 29

Wea.

We then lay out 73
plants.

Ther.

TUESDAY, JULY 30, 1895

Wea.

We then lay out 33 plants
in the forenoon which finish
the sets.

Ther.

WEDNESDAY 31

Wea.

Ther.

THURSDAY, AUG. 1

Wea.

Ther.

FRIDAY, AUG. 2, 1895

Wea.

Ther.

MONDAY, AUG. 5, 1895

Wea.

George and I go to Burlington to buy a gravestone for Mother.

Ther.

SATURDAY 3

Wea.

Ther.

TUESDAY 6

Wea.

Shipped plants to Oswald
Wright and others in
Europe.

Ther.

SUNDAY 4

Wea.

Ther.

WEDNESDAY 7

Wea.

John and I lay a foundation for Mother's gravestone.
A tempest of rain passes.

Ther.

THURSDAY, AUG. 8, 1895

Wea.

Ther.

SUNDAY, AUG. 11, 1895

Wea.

Ther.

FRIDAY 9

Wea.

Ther.

MONDAY 12

Wea.

I visited Fred Lyman in
Hinesburgh.

The Welcomes leave, driving in
their own buggy over the mountains
to Woodstock.

Ther.

SATURDAY 10

Wea.

Ther.

TUESDAY 13

Wea.

Ther. WEDNESDAY, AUG. 14, 1895 Wea.

Ther. SATURDAY, AUG. 17, 1895 Wea.

We set up Mother's gravestone.

Ther. THURSDAY 15 Wea.

Ther. SUNDAY 18 Wea.

Ther. FRIDAY 16 Wea.

Ther. MONDAY 19 Wea.

*I fetch Mother's gravestone
from Burdington.*

Ther.

TUESDAY, AUG. 20, 1895

Wea.

Ther.

FRIDAY, AUG. 23, 1895

Wea.

Ther.

WEDNESDAY 21

Wea.

Ther.

SATURDAY 24

Wea.

Ther.

THURSDAY 22

Wea.

Ther.

SUNDAY 25

Wea.

Ther. MONDAY, AUG. 26, 1895 Wea.

Mrs. Tucker mows oats.

Ther. TUESDAY 27 Wea.

Ther. WEDNESDAY 28 Wea.

*John and I bring home
herbarium case from North
Fenistburgh.*

Ther. THURSDAY, AUG. 29, 1895 Wea.

Ther. FRIDAY 30 Wea.

Ther. SATURDAY 31 Wea.

Ther.

SUNDAY, SEPT. 1, 1895

Wea.

Clear. Breeze from N. E.

Ther.

WEDNESDAY, SEPT. 4, 1895

Wea.

Clear. Breeze from N. E.

Ther.

MONDAY 2

Wea.

Ther.

THURSDAY 3

Wea.

Ther.

TUESDAY 3

Wea.

Ther.

FRIDAY 6

Wea.

Clear and bright. Breeze from N. E.

Ther. SATURDAY, SEPT. 7, 1895 Wea.

Ther. TUESDAY, SEPT. 10, 1895 Wea.

Geo. A. Clark and family
move into our house.

Ther. SUNDAY 8 Wea.

Ther. WEDNESDAY 11 Wea.

Ther. MONDAY 9 Wea.

Ther. THURSDAY 12 Wea.

Ther.

FRIDAY, SEPT. 13, 1895

Wea.

Ther.

MONDAY, SEPT. 16, 1895

Wea.

I go to Burlington to the
Kane -

Ther.

SATURDAY 14

Wea.

Ther.

TUESDAY 17

Wea.

Turning my back on home
and the grave of my mother I
leave my native land again
for another Mexican journey,
John H. McGlashan still being
my company. Taking train at
4.00 P.M., we pass through Mont-
real in the evening.

Ther.

SUNDAY 15

Wea.

Ther.

WEDNESDAY 18

Wea.

We pass through Toronto about
7.15 A.M., Hamilton about
8.40 A.M., and arrive at Port
Huron Station at midday. Here
we have to wait till 3.30 P.M. to
go on to Sault City by a local
train. Leaving this place at 6.46
by another railroad for King's Mills
and thence walking on three miles
we come to the home of John's parents.

Ther. THURSDAY, SEPT. 19, 1895 Wea.

A thunder shower passes in the early morning.

John calls at Mr. Black's and I follow him there. After dinner we drive some six miles to visit his brother Peter and family.

Ther. FRIDAY 20 Wea.

John drives westward some 25 miles to bring home his sister Belle.

In the morning I help his father finish cutting his corn, in the afternoon cut corn for a while with Mrs. Black.

Ther. SATURDAY 21 Wea.

I pass the day with John's brother James.

Ther. SUNDAY, SEPT. 22, 1895 Wea.

We all attend church.

Ther. MONDAY 23 Wea.

We leave Mr. Mc Glashan about 7.30 A. M. Kings Mills Station at 9.00 A. M. going to Lapeer by mixed train, leave Lapeer

Ther. TUESDAY 24 Wea.

In the early morning we cross the Mississippi River at Ft. Madison, and we arrive at Florence, Kansas soon after dark.

Ther. WEDNESDAY, SEPT. 25, 1895 Wea.

Daylight finds us in the extreme western part of Kansas, noon nearing Raton, N.M. and night just beyond Wagon Mound.

Ther. THURSDAY 26 Wea.

Our eyes open to the daylight at Socorro, N.M. and we arrive in El Paso at 11.45 A.M.

Our trunks do not come on by the same train with us, but we get our box of bot. specimens out of the depot and commence repacking in a trunk at Mr. Long's.

Ther. FRIDAY 27 Wea.

Our trunks arrive at mid-day, and I get them through the Mexican Custom House just in time to board the train for Mexico City.

During the afternoon showers fall here and there in the Valley of the Rio Grande, and throughout the night over much of Chihuahua -

Ther. SATURDAY, SEPT. 28, 1895 Wea.

Day dawns as we pass Diaz Station.

Ther. SUNDAY 29 Wea.

Our train is sliding down into the Valley of Lagos when day dawns. We pass San Juan del Rio about noon and reach the city of Mexico at 6.30 P.M.

Ther. MONDAY 30 Wea.

We pass a very busy day unpacking our mounted plants and delivering them to the National Museum and the National Institute.

Ther. TUESDAY, OCT. 1, 1895 Wea.

We take train of the Mexico, Cuernavaca and Pacific R.R. for La Cima on the heights of Ajusco and then search for sets *Gentiana spathulata*, HBK. 6221

Return at 4.00 P.M.

Ther. WEDNESDAY 2 Wea.

We return by train to the great railroad cut on the side of Ajusco and walking back to the station of Contreras collect *Physalis Pringlei*, Griseb. 6216
Physalis foetida, Pour 6219

Ther. THURSDAY 3 Wea.

We go back by train to Contreras and follow up for several miles a great cañon (the region called "La Canada". but I see scarcely any plants not already collected by me and the cliffs prove disappointing.

Ther. FRIDAY, OCT. 4, 1895 Wea.

Leaving John to dry plants and witness the funeral of Manuel Romero Rubio, Minister of the Interior, I go again to La Cima on the Cuernavaca R.R. to collect for sets *Juniperus tetragyna*, Schlecht.

Ther. SATURDAY 5 Wea.

We take train on the National R.R. at 6.30 A.M. and alight at La Cima in a heavy fog. For six hours we clamber about the mountains in a vain attempt to find the cliffs, when three years ago I discovered *Asplenium suberectum*, Bancroft. Showers beginning after 2.00 P.M. we sought the shelter of the station at Salazar when a tempest raged till our train came along at 6.00 P.M.

Ther. SUNDAY 6 Wea.

6149 *Dissectum gracile*, Torr.
We go by train of the Mex. Cent. R.R. to Pachuca for the purpose of seeing the country, and find an unlovely mining town surrounded by an arid tract of bare hills and plains.

Returning at 6.00 P.M. we note rain in many directions.

Ther. MONDAY, OCT. 7, 1895 Wea.

We go back to La Cima on the Sierra de las Cruces and succeed in finding the summit cliffs, where we collect for sets.

⁶¹³⁰
Asplenium castaneum, Ch. Sells
before the rain comes.

Also, we finish a set of *Trisetum gracile* Fourt. we don't get very wet.

Ther. TUESDAY 8 Wea.

In the forenoon I make up specimens of the grass and fern brought in last night. In the afternoon I call at the Institute and on the Under-Secretary of Public Works Gilberto Crespo y Martinez. Then at 9.00 P.M. take

Ther. WEDNESDAY 9 Wea.

Morning bus no passing Olaya. We change cars at Irapuato and leave there at 8.30 A.M. arriving in Guadalajara at 3.43 P.M. We take a room in the Meson "Nuevo Mundo".

Then call at Mr. Howland's house - A light drizzle in the evening.

Perpestis auriculata, R. & S. 6148

Ther. THURSDAY, OCT. 10, 1895 Wea.
Eriocaulon bilobatum Morong. 6299

We devote the day to drying our plants and clothing brought damp from Mexico and to resting.

No rain.

Ther. FRIDAY 11 Wea.

We go to Rio Blanco via Zapopan and street railway to that village, and collect for sets. ⁶¹⁴⁶
Eriocaulon jaliscanum Wiggins 6200
Chrysomela macrophylla, New? 8

I try in vain to find again *Perezomium jaliscanum*, R. & S. Probably it was scarce when I discovered it and now is past. Returning rain and night mist as

Ther. SATURDAY 12 CLOUDS - Wea.

We go down into the barranca collecting for sets.

Eupatorium
Heliotropium discipinatum, Juss. 6145
var. *orbiculare*, R. & S.
Porophyllum *Pringlei*, R. & S. 6151

A search for a mile up and down the river bank yields but few specimens of *Salicaria anthemifolia*, R. & S. No rain.

Ther.

SUNDAY, OCT. 13, 1895

Wea.

In our room drying plants during the forenoon; then we go out to dine with Mr. Howland's folks, and afterwards hear him preach in English.

No rain seen -

Ther.

MONDAY 14

Wea.

We go to the Falls of Juanacatlan and collect for sets 6179. *Ammania auriculata*, Willd.

No Rain Seen -

Ther.

TUESDAY 15

Wea.

I collect for sets near the station of El Castillo. ⁶¹⁸¹
Justicia Pinglei, Rob.

A passenger from Mexico tells of water deep in the struts there last evening. No rain hereabouts.

Ther.

WEDNESDAY, OCT. 16, 1895

Wea.

I spend much time in the morning before finding Milton ^{whom I} wish to take to the mountains with us. Then I rest and in the afternoon spend much time about the swamps of Aguacapul without finding anything new to me - Still no rain.

Ther.

THURSDAY 17

Wea.

Hiring Milton to accompany us and dig bulbs of *Russelia elyans*, we go by train to La Capilla station thence on foot into the mountain canon three hours to the south, where we make our camp in an oak wood in the heart of the mountains. No more rain.

Ther.

FRIDAY 18

Wea.

We collect for sets 6214 *Laburn Pinglei*, R. & B. n. sp.
Ceryllis ⁶¹⁹³ *Watsoni*, C. & B. ?
Brachy ⁶¹⁹⁸ *edim Mexicanum*, Link
var. latifolium, Bourne.

Three nights are cool, but we sleep comfortable.

Ther. SATURDAY, OCT. 19, 1895 Wea.

On our way back to the train we collect
Salweenia Pringlei, R. & G. 6154
Mimosa ⁶¹⁹⁹⁷ ~~*truncifera*~~, Benth.

The *Salweenia* is a slender shrub ten feet high at its base with three main branches which fork in two it may be several times.

Ther. SUNDAY 20 Wea.

We work over our plants till the hour for attending the English service; then we hear Mr. Wilson preach.

Ther. MONDAY 21 Wea.

We finish drying our plants.

Engage Meliton to go with us to La Venta in quest of specimens of the long corned pine there.

Ther. TUESDAY, OCT. 22, 1895 Wea.

Meliton failing to meet us at an early hour, I decide to linger no longer about Guadalajara, but turn toward Oaxaca.

We leave by train at 10.45 A.M. A dusty ride. Arrive in Oaxaca a little before 6.00 P.M. where we go on at 7.30 P.M.

Ther. WEDNESDAY 23 Wea.

We arrive in Mexico City at 7.00 A.M. and go into our old quarters.

Then soon go out along the railroad and get a set of *Agave* ²³⁰ *Billidiiflora*, DC. in water. I visit the Institute and Museum in the afternoon but no money is paid me.

Ther. THURSDAY 24 Wea.

Once more we go up to Salazar and in cloudless weather walk two and a half hours to the summit cliffs (there and returning) collecting sets of
Barbieria trifolia, Schumacher 6218
Cunila *lythroides*, Benth. 6228
Schizoclelea reticulata, DC. 6222

Ther.

FRIDAY, OCT. 25, 1895

Wea.

While John dries plants I make out a list of Mexican grasses at the Institute.

Ther.

SATURDAY 26

Wea.

I think best to learn something of Cuernavaca and the vegetation of its vicinity before traveling away to Oaxaca. Accordingly we go by train to San Marcos and thence to Cuernavaca by diligence, are received by my old friends Frank M. Boydston and wife.

Ther.

SUNDAY 27

Wea.

We spend the day just outside the city on the west and collect for sets.

Alomia alata, Hemsl. 6229
Cupressus microcephala, HBK. 6234
Ageratum strictum, Hemsl. 6235
Zinnia helianthoides, Gray. 6236
Crinia coronata, R. & S. 6237
Kimberlyella elvinae, Clark 6238

Ther.

MONDAY, OCT. 28, 1895

Wea.

With a full pack we take the stage to return to Mexico at 6.00 A.M. intending to come back to work the Cuernavaca region as soon as we can arrange the money.

On the way up the mountain side to San Marcos I walk a part of the way and collect.

Stipa viridula, HBK. 6236

Ther.

TUESDAY 29

Wea.

John cares for our plants, while I study and compare specimens in the Institute.

Ther.

WEDNESDAY 30

Wea.

Leaving John with the plants in our hotel in Mexico, I go to Orizaba to bring away that part of our outfit left in Toluca there in February last. I overhaul it and repack such things as I want in a large trunk.

Ther. THURSDAY, OCT. 31, 1895 Wea.

Before the train is due to pass on its way back to Mexico I collect about the river 6155
Panicum Brasilensis?
Spananthe paniculata Jacq. 6231
 The train comes an hour late and only reaches Mexico about 8.45 P.M. instead of 6.40 P.M.

Ther. FRIDAY, NOV. 1 Wea.

We settle in a room in the Hotel Buena Vista No. 27 - which I have hired for a month.

Ther. SATURDAY 2 Wea.

We go to Contreras in company of our German neighbor Mr. & Mrs. Harry Ahrens, and collect for sets
Viburnum elatum Benth. 6189
Rhus tinctoria, Sch. & Bopp.

Ther. SUNDAY, NOV. 3, 1895 Wea.

I go out by National train to Rio Honda and collect for sets 6182
Floristina pedata Cav. 6232
Parophyllum taxifolium, DC.
Stipa trochlearis, Nees Meyer. 6226

Ther. MONDAY 4 Wea.

I go out to a ravine beyond Huixtla and collect sets of
Salvia inconspicua, Schauer. 6233
Aristida brownei, HBK. 6227

In the late afternoon with Mr. Wm. Brockway visit the Institute and the Museum.

Ther. TUESDAY 5 Wea.

Moving over to Cuernavaca with two trunks I descend from the stage at Huixtla and thence walking down to town collect sets of
Vernonia calicifolia, Sch. Bip. 6188
Munipoid biennis L. & R. 6186 n. sp.

Ther. WEDNESDAY, NOV. 6, 1895 Wea.

While John attends to the drying I collect in the west edge of town
Bida Alamosana, Watson. 6178
Myrtis capitata, Jacq. 6163
Cuscuta gracillima, Engelm. 6159
Zexmenia crocea, Gray. 6187
Stevia paniculata, Lf., var. 6193

The weather here is dry and too warm to wear a coat while the sun is high.

Ther. THURSDAY 7 Wea.

I collect in the ravine next west of the city getting for city 6160
Nama rupicola, Pavon.
Arelia humilis, Cav. 6239

Ther. FRIDAY 8 Wea.

In the ravine next west of town collect for city 6182
Liabum glabrum, Haussk.
Echinops on Pimpli, Rose n. sp.
Orsellia ulmacea, HBK. 6186

Ther. SATURDAY, NOV. 9, 1895 Wea.

About the barrancas south west of the city we collect
Bursaria lanuginosa, Engelm. 6208
Guardsiola Mexicana, H. & B. 6154
Burjania triginta, Kalk. 6202

To me walking and climbing is painful during these days by reason of rheumatism in my back.

Ther. SUNDAY 10 Wea.

I take a nap in the forenoon, and after dinner visit the falls and the barranca below collecting 6162
Raparia discolor, New.
Cacalia tridactylis, H. & B. 6164

Ther. MONDAY 11 Wea.

Again in the barrancas west of town and collecting
Lippia callicarpifolia, HBK. 6201
Jalliscoa Pimpli, Watson. 6158

Ther. 61.59 TUESDAY, NOV. 12, 1895 Wea.

Piper umbellatum, L.

This is the only plant for its occurred by me today to repay much following up of barrancas in the hot sun, and might find me very tired and somewhat disheartened.

Ther. WEDNESDAY 13 Wea.

I start afield in the early morning, while the air is yet cool; joy and hope springing up afresh, and at midday bring in *Pteropteris Mexicana*, A. & G. 6212. *Prionia Mexicana*, A. & G. 6224.

After dinner collect *Opilismenus rariflorus*, Benth. 6203.

Opilismenus Humboldtianus var. *amblyanthus*, Benth. 6209.

Ther. THURSDAY 14 Wea.

In the forenoon I collect *Paspalum conjugatum*, Berg. 6215.

In the afternoon John and I follow the aqueduct up into its cañon and collect 6211.

Passiflora adnophylla, Mart. *Xanthoxylum foliosum*, Rose n. sp.

The weather is cooler -

Ther. FRIDAY, NOV. 15, 1895 Wea.

Working farther up the aqueduct cañon I collect *Pimpinella Mexicana*, Rob. 6217. *Wimmeria persifolia*, Radlk. 6210.

Ther. SATURDAY 16 Wea.

Returning to the same field but going a mile farther I collect for six 6205. *Mitastelma multiflorum*, Watson. *Loranthus virens*, A. & G. 6180. 6195. *Myroxylon longispinum*, Rose n. sp.

Ther. SUNDAY 17 Wea.

A cloudy day.

I write to

L. C. Smith

Sarah F. Clark

Kate P. Hewitt

Dr. Benj. L. Robinson

and late go over to San Antonio for a set of 6213. *Buddlia floccosa*, Kunth, form.

Ther. MONDAY, NOV. 18, 1895 Wea.

Today, following up the same
cation, but along the verge
of its east bluff, I reach the
mountain woods and collect

Suriana racemosa, Schum.
Cacalia obtusiloba R. & S.
Mimosa caribaea, Rose, n. sp.

Persea guineensis, Rob. & Gumm.
A slight misty rain falls
throughout the day and
and continues all night.

Ther. TUESDAY 19 Wea.

By the time I gain the forest
again a mist settles over
the mountains, though the
valley lies in sunshine.
So I have to work another
day amidst wet bushes and
grass. I gather for sets only
Besleria incinatum, L.
Castilleja tinea, Rob. & Gumm.

Ther. WEDNESDAY 20 Wea.

Last evening just before
leaving the mountain side
I found on the verge of banks
and cliffs overhanging the
barranca a fern which I
take to be *Chilanthus auranti-*
tiaca. I go back for it today
but find it too nearly dead
to use for specimens. In the
barranca I find *Aerostichum*
= 5-30 also *Past. hillebr.*

Ther. THURSDAY, NOV. 21, 1895 Wea.

Today only an hour's walk
from town on a bluff in the
(San Antonio) aqueduct
canon I find in fresh
condition the object of
yesterday's search and col-
lect sets of 6192

Chilanthus aurantiaca Moench
Asplenium fibrillose,
Ringlebach, n. sp.

Ther. FRIDAY 22 Wea.

I return to the shaded
damp ledges and banks
for a larger supply of the
two ferns and take also a
set of 6190
Aspidium Athyroides, M. & L.
which I find growing in
their company.

Ther. SATURDAY 23 Wea.

We board the stage at
6:00 A.M. with our baggage
and collection to return
to Mexico and arrive there
at 4:00 P.M.

I call at the Institute.
We passed through a cold
show, when crossing
over the mountain.

Ther. SUNDAY, NOV. 24, 1895 Wea.

I spend the greater part of the day at the Institute studying my Guernavaca collection.

John and I go out to a bull fight which breaks up in a tumult because the third and fourth bulls prove cowardly.

Ther. MONDAY 25 Wea.

I spend much of the day at the National Museum.

Ther. TUESDAY 26 Wea.

We rise early and walk across the city to the Inter-oceanic depot where taking the train at 7:00 A.M. we reach Puebla at 12:45 P.M. and at 2:10 P.M. go on by Mex. Southern as far as Tehuacan. Here we stop off for a day's botanizing.

Ther. WEDNESDAY, NOV. 27, 1895 Wea.

In the hedgerows of the lands of the suburbs of the town and about the foot of the hills east of the river we collect sets of:
Sphaeralcea ⁶²⁴¹ *umbellata*, St. Hil.
Salvia ⁶²⁴² *aspura*, Mart. & Gal.
Sanvitalia ⁶²³⁹ *fruticosa* Humb.
Cardiospermum ⁶²⁶² *microcarpum*, HBK.
6274 *Pilea* *parviflora*, Rose n. sp.

Ther. THURSDAY 28 Wea.

Before the train comes along at 9:37 A.M. we collect in the edge of town ⁶²⁷² *Phorodendron Robinsonii* Urban n. sp.

Passing up through Somelín Canyon we are pleased to see the vegetation abundant for that region and still fresh. Arrive at Oaxaca at 7:30.

Ther. FRIDAY 29 Wea.

We settle in good quarters in a house occupied by the American Bookmaster, Mr. Underwood. Rev. Mr. Sweet joins with me to call on the Governor. And towards evening I look over plants with Bert Smith.

Ther. SATURDAY, NOV. 30, 1895 Wea.

We go by train to Almoloya
in Tormellin Cation and collect
Cypripedium pubescens, Rob. & Green. 6175
Tetramorium aureum, Rose 6174
Jacquinia candelabra, B. & H. 6260
Carlsonia Bringlei, R. & G. n. sp. 6261

Ther. TUESDAY, DEC. 3, 1895 Wea.

I go out on the train to
Las Sidas where I collect
Gaytheria Bringlei, Rose 6271
Senecio prismatocarpus, R. & G. n. sp. 6272
Plumbago pulchella, Boiss. 6273
Phytolacca longispicata, Moq. 6274
Lantana purpurea, Jacq. 6270
Aralia humilis, Less. 6173.

Ther. SUNDAY, DEC. 1 Wea.

I return to Almoloya
and collect for det. 6208
Cypripedium pubescens, Schauer. 6279
Lipsonoglossa ramosa, Engl.

Ther. WEDNESDAY 4 Wea.

I look over plants with Mr. Smith
in the forenoon, then take a nap.
Towards night collect near town
Brickellia tomentella, Gray 6172

Ther. MONDAY 2 Wea.

I take Antonio Lopez
and ascend to the western
summit ridge of San
Felipe. We collect det. of
Cacalia longipetiolata, R. & G. 6176
Agratum microcephalum, 6177

Ther. THURSDAY 5 Wea.

We go to Monte Albano
collect along the whole length
of its summit, but by the time
we reach its base we have
for det. 6268
Brickellia Hartwegii, Gray. 6275-
Eupatorium spinosum, Gray. 6267
Agratum palacum, Hemsl. 6271
Hypoxis tomentosa, Poite. 6271
Carlsonia Bringlei & *Candulosa*, R. & G. n. sp. 6272

Ther.

FRIDAY, DEC. 6, 1895

Wea.

I engage a man from Mr. Smith's house and pass over the summit of Monte Alban collecting *Trich. oligantha* Rob. & Greenm. ⁶¹⁷⁰
Benjamin

Ther.

SATURDAY 7

Wea.

We go to Ahmologas again and collect by sets of *Abutilon* ⁶²⁷⁸ *Hesperanthus*, Rose n. sp. *Stillingia appendiculata*, Mill. Arg. ⁶¹⁶⁹

a cool north wind proving marring the nights too cool for sleeping out, so we return at evening.

Ther.

SUNDAY 8

Wea.

I go to Ahmologas again (56 miles from Oaxaca as the train runs) and in the five hours I have there between trains gather for sets *Zinnia mexicana*, ⁶²⁸³ *non-ogisima*, Greenm. ⁶²⁸⁴ *Zinnia mexicana*, Gray, var. *Ruellia albicanlis*, Benth. ⁶²⁴⁹

Ther.

MONDAY, DEC. 9, 1895

Wea.

I return once more to Ahmologas; and, walking further down the track collect *Wrothia ulmaria*, HBK. *Physalis ixocarpa*, Benth. ⁶²⁶³ *Euphorbia succarullii*, Rose n. sp. ⁶²⁶⁵

Ther.

TUESDAY 10

Wea.

I take Joel and we climb to the summit meadow of San Felipe collecting *Aracacia bruxipes*, HBK. ⁶²⁶⁶ *Andrena flavescens*, Benth. ⁶²⁷¹ *Astragalus oreocanus*, Rose n. sp. *Antonie Lopez* also brings down for me sets of *Euchisia arborescens*, Sims. ⁶²⁵⁴ *Occipantia jaliscana*, Watson. ⁶²⁶⁴

Ther.

WEDNESDAY 11

Wea.

Alone I start again up the mountain side, rejoicing to find myself fresh and strong after yesterday's tramp of 20 miles. I collect about the orchards. ⁶¹⁶⁷ *Brickellia secundiflora* Gray ⁶¹⁶⁶ *Vernonia monoxis* Sch. Bip. *Relb. florida*, R. Br. ⁶²⁵⁵ ⁶²⁴⁴ *Robinsonella cordata*, Rose & Baker ⁶²⁰⁰ *Syrphothra retusa*, R. & G. n. sp.

Ther. THURSDAY, DEC. 12, 1895 Wea.

We dry and arrange plants,
for I find myself too tired to
climb the mountain today.
Call on Mrs. Smith ill with a
bad foot.

Ther. FRIDAY 13 Wea.

We take Antonio and climb
to the summit peaks and
bring down sets of 6243
Pinus tiocote, Ok. Schl.
*Polypodium*⁶¹⁹⁴ *moniliforme* Lf.
Cacalia peltata, HBK. v. Congatti, R. v.
Coralorrhiza Dinglii, Robinson
Monnina *Xalapensis*, HBK.⁶²⁵⁶
Baccharis *arsacana* Griseb.⁶²⁵⁷
n. 149

Ther. SATURDAY 14 Wea.

We care for our plants at home

Ther. SUNDAY, DEC. 15, 1895 Wea.

We arrange plants and
pack trunks for our return
to our base in Mexico.

In the evening I spend
an hour or two very pleas-
antly with Prof. Cassiano
Congatti looking over with
him some of his later col-
lections of plants.

Ther. MONDAY 16 Wea.

We leave Oaxaca at
6.00 A.M. and arrive in Puebla
at 7.40 P.M.

Scanning the cation between
Almolozas and Tomellin as
we pass through it I judge
that I have left scarcely
anything behind but further
on towards San Antonio I saw
shrubs in flower.

Ther. TUESDAY 17 Wea.

We leave Puebla at 12.46
P.M. and arrive in Mexico
at 6.30 P.M.

Ther. WEDNESDAY, DEC. 18, 1895 Wea.

We arrange and pack plants to ship home -

Ther. SATURDAY, DEC. 21, 1895 Wea.

Hiring a young Mexican to accompany me I go by tramway to the station of Cananda, half way over to Esperanza, and collect
Salvia canbicans ⁶²⁴⁵ Mart. obs.
Phytolacca longispicata ⁶²⁴⁸ Macq.
Juniperus Mexicana ⁶²⁴⁸ Willd.
Salvia hymnoides ⁶²⁴⁹ Mart. Val.
 We get back by 5.00 P.M.

Ther. THURSDAY 19 Wea.

we take train of the Mexican Ry at 7.00 a.m. for Esperanza, arriving there at 3.00 P.M. our train getting belated on account of a disabled engine. There changing to the tramway we arrive at Tehuacan about 6.00 P.M. and take a room in the Ferrocarril H.

Ther. FRIDAY 20 Wea.

About Tehuacan collect
Suriana ⁶²⁸⁰
Martens phyllanthoides ⁶²⁸⁰ Kunth
Castilleja longiflora ⁶²⁸⁰ Kunze
Gochmatia hypoleuca ⁶²⁸³ Gray
Gymnoloma pinnatifidata ⁶²⁸² B. & H.

Ther. SUNDAY 22 Wea.

About the bluffs and the stream east of town I collect for sets
Pedilanthus aphyllus ⁶²⁹¹ Boiss.
Cassia halottiana ⁶²⁴⁸ Martens.
Vernonia odoratissima ⁶²⁴⁸ HBK.?
Rhipidochloa stolonifera ⁶²⁸⁹ Scribn. & G.

Ther. MONDAY 23 Wea.

I go out by tramway as far as the hills, where I find for sets
Mimosa lacustrata ⁶²⁴⁷ Rose n. sp.
Pharadendron Fontiersii ⁶²⁴⁹ Riv. & Guss.
 I return on foot and about the station of the Southern Ry gather
Lithospermum lineifolium ⁶²⁸⁸ Macq.

Ther.

TUESDAY, DEC. 24, 1895

Wea.

On limestone ledge some
two miles west of the R.R. station
I collect for sets 6294
Berubtia lasigata Rob. Hermann, n.g.
Forquira formosa, A.B.C. 6296
Himneria pubescens, Radlk. 6289
Hainia rubicunda, R. & B. n.g.
Hainia Pringlei, R. & B. n.g.
Cuscuta umbellata, A.B.C. 6297
Arabis mucinata, Watson 6292

Ther.

WEDNESDAY 25

Wea.

We leave Tehuacan at
7.30 A.M. by train and
Coahuila by train of Mex.
R. about 1.00, and reach
Mexico at 7.00 P.M.

I bring away from Tehuacan
pleasant memories of its sunny
skies, dry warm climate,
and of its brown hills and its
valley green with wheat fields.

Ther.

THURSDAY 26

Wea.

Busy arranging plants
and packing for home.

Ther.

FRIDAY, DEC. 27, 1895

Wea.

Finish packing up.
Leave with Mr. & Mrs. Henry
Ahrens
Sergers, Camera, etc.

Ther.

SATURDAY 28

Wea.

At 9.00 A.M. we take train
of the Mexican Central R.R.
bound for El Paso.

Ther.

SUNDAY 29

Wea.

Ther. MONDAY, DEC. 30, 1895 Wea.

We arrive in El Paso about
9:00 A. M.

We pack our collection in a
box and ship it home.

Then later at night board
train of D. & P. R.R. homeward
bound.

Ther. TUESDAY 31 Wea.

MEMORANDA

Last number of Pl. Mex.:
6194.

Bills, miscellany:

5951.

590: \$163.72

El Museo Nacional. 590

Pl. Mex., 1894: 425 + 74 + 18 + 74 =

El Instituto Médico Nacional:

Pl. Mex., 1894: 425 + 92 + 19 (+ 73) =

609: \$169**

Sannietto

Old Chem. Co.,

15 Cedar St., New York.

Tea spoon doses four times a
day. Irritable bladder, etc.

Dr. Ramirez needs Cont.
Harv. Herb. since 1891 -
Dr. Urbina needs same -

MEMORANDA

When at home again
see if I have now a set
of *Schizocleria brisigani*, by
framed in 1888 on S. M.
of Chilinalma -

N. K. Mex. herbaria want
Castilleja lanata, Gray.

Dr. Urbina wants *Karwinskii*

Dr. Urbina wants a score
of ferns covers and
some ream or half
ream of mounting paper.

Mex. herbaria lack
Notholana candida, Hook.

Ptilotum complanatum,
Ophryocarpus vulgatum, L.
Lycopodium arvense, L.

Ferns:

Cueva de Tamascal,
Nob. Orizaba.

Vaqueria del Jacal.

Mirador & Zacuapán
Selvoti.

MEMORANDA

Mrs. Almus wants
Burnetts Extract of
Vanilla, almond
Lemon & Rose.

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

1881-1882
Mexico, Central, Vol. 4-5

CASH ACCOUNT. JANUARY.

CASH ACCOUNT. JANUARY.

[illegible]

CASH ACCOUNT. FEBRUARY.

CASH ACCOUNT. FEBRUARY.

[illegible]

CASH ACCOUNT. MARCH.

CASH ACCOUNT. MARCH.

Date.	Received.	Paid.
1	Postage	1 08
11	Charlotte - Burlington. Books + papers Lead pencils	60 80 25-
16	Postage Ch - B. Falls & R. B. Falls - S. Duxford Paper	65 6-40 160 38 29
18	So. B. - R. Falls	1 60
20	Postage	1 10
22	Postage	60
23	Axe + nails Will ash	1 05 25-
29	Board to date (2)	16 00

CASH ACCOUNT. APRIL.

Date.	Received.	Paid.
2	Wm. Lison's team, 2 days,	6 00
5-	Town clerk for deed Geo. E. Prindle, cash,	1 00 1456 17
	" " " note,	343 88
	Saw	39
9	Ch - R. Falls & R. R. Y. - So. Springfield	5 40 1 61
	Lunch	20
10	Span of horses Lewistown & Wood, Dulburn Falls, May,	315 00
	Fares	2 20
11	Fares	2 20
	Pair of harnesses	35 00
	Freight on paper	1 09
12	Wagon & freight	70 98
13	Horse & blankets	5 70
16	Pruning tool	1 25
	Dentist	5 00
	Spectacles	2 50
	Shirting	3 84
	Dinner	25 00
	Knife	45
	Hurling ton - Ch.	35
	Carlisle Parker	100 00
	Geo. E. Prindle	344 50

CASH ACCOUNT. APRIL.

Date.	Received.	Paid.
20	Plant poison, etc.,	2 57
22	Horn cups	2 50
	Horn feed, etc.,	2 09
24	Saw	1 75
	Pruning shears	75
	Glue	50
	Room	25
28	Car hire	40 80
25	Harrow	14 50
	Feed	9 25
24	Plow	13 50
26	Board 4 weeks, Whiffletrees	17 00 3 00
	Barrel of flour	3 50
	Lumber & sawing	15 00
27	Cedar posts	3 44
	Milk can, etc.,	8 27
30	Repairs to harness	40

CASH ACCOUNT. MAY.

Date.		Received.	Paid.
1	Will Graham		2 50
4	John Lessor	1 25	
8	Alcohol		3 00
	Grass seed, etc.,		3 00
9	Water cleaning		1 00
	John Lessor to date	5 00	
12	Soaps		25-
13	John Lessor		3 00
15	2 Ch. - R. Falls & R.	10 80	
	B. F. - Boston (2)	6 04	
	2 dinners	40	
	R. - Cambridge	16	
17	2 dinners	50	
18	C. - Boston	20	
	B. - Bellows Falls	6 04	
	Churn & envelopes	40	
20	Wire, nails, etc.,		3 12
21	George & Will	10 00	
	Cedar posts	3 60	
22	Hinges for gates	3 00	
27	Calves	6 00	
	Oats	6 50	

CASH ACCOUNT. MAY.

Date.		Received.	Paid.
30	Ch. - Rutland & R.		2 75-
	R. - Middle town		1 07
	Stack		25-

CASH ACCOUNT. JUNE.

CASH ACCOUNT. JUNE.

Date.	Received.	Paid.
1	W - Rutland	25-
4	Hay ripping lumber, etc.,	7 00
5	Blank lining	28
	Chaise	62
6	Express to Willits, mosses,	80-
10	Seymour	1 30
	Sundries	44
11	Window screens	48-
12	Express to Eggleston	15-
14	Shoes (3 prs)	9 75-
	Shoes J. H. McElashan	8 00
17	Paint	1 50-

CASH ACCOUNT. JULY.

Date.	Received.	Paid.
1	Expense to dry rags	4-0
2	J. H. Mc Glashan	70 80
	Suit of clothes	10 00
	Watch crystal	25-0
	Pick	1 50
	Sinner	25-0
4	G. H. W.	40 00
	Will Beaman, shoe	1 90
	" " cash	70-
	Ch - Rutland & R.	2 75
6	Sinners, etc.	1 00
	Suit of clothes	10 00
8	Horse rake, etc.,	25 16-
9	Ch - Boston & R.	6 70
	Hotel & meals	1 35-
10	Photo. plates	4 00
11	Twine & wire	2 83
	Clothing	7 50
	John H. Mc Glashan	13 00
	Sundries	35-
15	Herbarium case	35-00
	5 stockings	60
18	Freight on driers, etc.,	35-
	Ch. - N. Haven & R.	75-
19	2 Cows	62 00
19	J. H. Mc Glashan	5-00

CASH ACCOUNT. JULY.

Date.	Received.	Paid.
22	Willis L. Beaman	21 40
	Taxes	38 12
	Baptist Church	5-00
24	Oats	5-17
	Bull	10 00
26	J. H. Mc Glashan	5-00
	Buffalo Bill's show	1 30
30	Roy Tappert	6 5-0

CASH ACCOUNT, AUGUST.

Date.		Received.	Paid.
3	Pasteboard & nails		60
9	Knif, etc.,		5-
26	Postage		56
28	Postage		26
	Geo. H. Welcome		377 75
	Herbarium case		35 00
	Mrs. Tucker, map		6 00
	Franc Palmer		7 50
	A. B. Seymour		13 88
	Bot. Gazette		2 00
29	Knif	10 00	
	Sewing		75
	Knif		75

CASH ACCOUNT. AUGUST.

[illegible]

CASH ACCOUNT. SEPTEMBER.

Date.		Received.	Paid.
4	State Fair		1 15-
6	State Fair		1 30
7	Medicine - Brush		40
11	Paper and nails		60
12	Hinges		75-
15	Medicine		2 80
	Rev. Mr. Chapman		5-00
16	Paper 50; pencils 25 =		75-
	Run caps 1.50; medicine 1.00 = 2.50		
	Knives		1 40
	Burlington - return		60-
17	Phuse etc.		2 10
	G. E. P. Son's acct.	57	80
	2 Ch - Inglez City	25-	00
23	Churn		60
	2 I. C. - El Paso	85-	24
24	Sleeping car		1 50
25	Food 80 + 20 =		1 00
	Books & spec		80
26	Freight Ch. - El Paso	16	31
	Rhoon 1.00; food 15 + 50 =		1 65-
	Drum		1 50
27	Food 70 + 12 =		82
	Carter 35 + 235 =	2	70
	Sundries 60 + 20 =		80

Mexican money 54.

CASH ACCOUNT. SEPTEMBER.

Date.		Received.	Paid.
27	Exp. & duty on photo. film.		3 25-
29	Food		40
	Hotel Reina Vista		9 50
	Cayadores		75-
30	Food 29 + 1.05 =		1 34

CASH ACCOUNT. OCTOBER.

Date.	Received.	Received.	Paid.
1	Food		1 15
	Mex. - La Cima & R.		
2	Food 30 + 1.25 =		7 60
	Fares		1 45
3	Food		2 50
	Boys		1 15
	Fares		35
4	Food 37 + 1.25 =		2 00
	M - La Cima & R.		1 50
	P.O. Stamps		2 90
5	Fares to Alajaz & R.		1 00
6	Food		2 90
7	M - La Cima & R.		1 79
	Food		2 96
8	Food 1.15 + 14 =		12
	Cargadores		1 29
9	Food 10 + 0.6 =		1 00
	Fruit 1.60 +		16
	Room, Museo Munko,		1 60
10	Food 171		50
11	Food		1 71
	Strut cars		65
12	Food 65 + cars 120 =		32
13	Food 41 + 18 =		86
14	Food		50
15	Church Contributions		14
15	Food 98 + 36 + 25 =		90
	Room rent		60
16	Books		1 59
16	Food 35 + 22 + 22		5 00
			1 00
			79

CASH ACCOUNT. OCTOBER.

Date.		Received.	Paid.
17	Food '37 + 20 =		57
19	Food		21-
	Militon 3 days,	2	25-
	" fares	1	28
20	Food. 57 + 01 =		52
21	Food. 65 + 81 + 09 =	1	45-
	Postage, Kessira,		94.
22	Food 44 + 04 =		48
	Militon		75-
	Cargadores		75-
	Room	1	00
23	Cargadores, Mexico,		87
	Food 1.15 + 06 =	1	21
	Car fares		12
24	Food		20
	Mex. - Salazar & R. (2)	2	56
25	Food 1.00 + 36 =	1	36
26	Food. 06 + 37 =		43
	Mex. - Cuernavaca & R.	14	00
27	Food		50
28	Food 1.00 + 31 =	1	31
29	Food 20 + 33 =		53
	Room to Nov. 30	12	00
30	Food '31 + 121 =	1	52
	Mex. - Orizaba & R.	9	55-
31	Baggage excess	3	38
	Room 6 months	12	00
	Carter		50
	Food		70

CASH ACCOUNT. NOVEMBER.

Date.	Received.	Paid.
1 Food 32 + 10 =		42
Cargador		40
2 Food 20 + 1.16 =	1	36
Mex. - Contreras + R.	2	00
3 Food		49
Mex. - Rio Honda & R.		44
4 Food 1.41 + fares, 60,	2	01
5 Food 2.08 + 35 =		43
2 Mex. - Cuernavaca	7	10
2 Trunks	6	40
Cargador, Cuernavaca	40	00
6 Food 1.54 =	1	54
Room, Hotel Robles,	5	00
7 Food 20 + 60 + 27 =	1	07
8 Food 50 + 19 =		69
9 Food 48 + 38 =		86
10 Food 32 + 18 + 25 + 34 =	1	09
11 Food 20 + 76 + 57 =		153
12 Food 48 + 53 =		101
Painting, Maltrelo,	15	00
J. H. Mc Glashan	25	00
13 Food		77
14 Food 41 + 53 =		94
15 Food, etc., 67 + 60 + 25 =	1	52
16 Food 50 + 25 =		75
17 Food 38 + 52		90
Buddha's Specimens	12	
18 Food 1.13 =	1	13
19 Food 60 + 30 =		90
20 Food 32 + 14 + 25 =		71

CASH ACCOUNT. NOVEMBER.

Date.	Received.	Paid.
21 Food 57 + 25 =		82
22 Food 65 + 25 =		90
Cargadores		25
2 Cuernavaca - Mexico	7	10
Baggage excess	6	36
Hotel Robles,	4	00
23 Food 27 + 1.08 =	1	35
Cargadores		50
24 Food 1.27		27
Bull fight - 4 mo 6	1	12
25 Food		1
2 Mex. - Oaxaca & R.	4	00
Baggage express, F.C.I.,		1
" excess		88
5 1/2 lbs cheese		1
Room rent - month	12	00
26 Baggage excess F.C.I., M., S.,	2	20
Cargadores Puebla,	1	10
Hotel Juarez, Tehuacan,	1	25
27 Food 29		29
Hotel Juarez, Tehuacan,	1	00
28 Food 30 + 30 =		60
29 Hotel, Oaxaca,	1	50
Food 87 + 55 =		142
30 Food 13 + 15 =		28
2 O. - Almoloya & R.	4	20
Room rent	5	00

CASH ACCOUNT. DECEMBER.

Date.	Received.	Paid.
1 Food		46
0. - Almolozas & R.	2 10	
2 Food 38 + 46	36	
Antonio Lopez	1 75	
3 Food	1 54	
4 Food 1.4 2; Candles 26	1 48	
Paper & Cutting	2 25	
5 Food	3 5	
6 Food	1 57	
José	50	
7 Food	42	
2 U. - Almolozas & R.	4 20	
8 Food	1 52	
0. - Almolozas & R.	2 10	
9 Food	1 09	
0. - Almolozas & R.	2 80	
10 Food	49	
Antonio Lopez, plants,	1 25	
José	50	
11 Food	66	
12 Food	1 60	
Antonio Lopez	1 00	
13 Food	10	
Antonio Lopez	1 00	
14 Food	2 02	
Juniperus flaccida	16 70	
15 Food, etc. 55	55	
Pastor stamps	50	
Cartier	75	
Hotel Nacional	75	

CASH ACCOUNT. DECEMBER.

Date.	Received.	Paid.
16 Food, etc.,		65
Baggage excess		3 30
17 Food 1.00 + 10.00 =		2 00
Baggage excess		1 45
Cargadores		75
Hotel St. Thomas		75
18 Food 195 + 26 =		2 21
19 2 Mex. - Esperanza (2 ch.)		9 60
Cargadores 30 + 1.00 =		1 30
2 Exp. - Tehuacan (2 ch.)		2 04
20 Food		41
21 Food		75
Tiburcio Orozco		2 00
2 J. - Cananea & R.		2 75
22 Food		50
23 Food		62
R.R. ticket		67
24 Food		66
25 Food 10 + 52 =		62
2 J. - Copacanga (st ch.)		3 06
Baggage excess		1 50
2 Exp. - Mexico		2 60
Baggage excess		2 82
26 Food		2 50
27 Food		1 47
28 Cargadores		1 25
Food, etc. 26 + 31 =		57
30 Cartier 2.00, 604.50 =		2 50
Food 225, room 1.00 =		3 25
El Paso - Portland		5 29
" " Detroit (4.00)		41 00

SUMMARY OF CASH ACCOUNT.

			Received.	Paid.
JAN.				
FEB.				
MAR.				
APRIL				
MAY.				
JUNE.				
JULY.				
AUG.				
SEPT.				
OCT.				
NOV.				
DEC.				

BILLS PAYABLE. JANUARY.

[illegible]

BILLS PAYABLE. FEBRUARY.

Date.	NAME.	Dolls.	Cts.	Date.
	RECEIVABLE.			

BILLS PAYABLE MARCH.

NAME.		Dolls.	Cts.
RECEIVABLE.			

BILLS PAYABLE. APRIL

BILLS PAYABLE MAY.

Date.	NAME.	Dolls.	Cts.
	RECEIVABLE.		

BILLS PAYABLE. OCTOBER.

[illegible]

BILLS PAYABLE 18 NOVEMBER.

BILLS PAYABLE IN DECEMBER.

Date.	NAME.	Dolls.	Cts.
	RECEIVABLE.		

MEMORANDA.

[illegible]

MEMORANDA.

ADDRESSES.

[illegible]

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Riv. A. H. Sutherland,

P.O. Box 77,

Durango, Mexico.

Room No. 8,

Hotel Central,

Chalchicomula, Puebla.

Posada,

Perote.

Mateo Trujillo,

Jalapa.

Mrs. Straus,

American Restaurant,

Jalapa.

Dr. Don Jacinto Hernandez,

Cp. Ferro Caril, Mexicanos,
Oizaba, Mexico.

Mr. & Mrs. Henry Ahrens,

Hotel Kruena Vista

Mexico

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NAME. Prof. Wm F. Ganong.

STREET, No. Smith Collge.

CITY. Northampton Mass.

NAME.

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STREET, No. 12 Francis Ave.

CITY. Cambridge.

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STREET, No.

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STREET, No.

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